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Database :
                                                                                                                                                             Post processing: Minimum Match 0%
                                                                                                                                                                                                   Maximum DB seq Length, 20000000000
                                                                                                                                                                                                                       Minimum DB seq length: 0
                                                                                                                                                                                                                                                             lotal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
1: pir1: 4: * * *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              February 20 2002 16-26-18; Search Limo 25-85 Seconds (Without alignments) 1231.759 Million cell updates/sec
                                                                                PIK_6d:*
                                                                                                                        Listing tirst 45 summaries
                                                                                                                                               Maximum Match lous
                                                                                                                                                                                                                                                                                                219241 seqs, 76174552 residues
                                                                                                                                                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
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1 MHILLEMISIGOCLAAVAVII.....LIAEEVOROVRISWKRPLMN 418
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright (c) 1993 - 2000 Compages and.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result		Ωπerγ *				
2	Score		Length	Ϋ́	ID	Description
	1804.5	76.7	419	ra i	869207	rascular endotbeli
٠,	211	10.0	1760	t ,	S08167	h
		9.0	232	N. 2	A41551	
4	191.5	8.1	190	t٥	852130	15
Jn.			190	ĸ	B44881	
J.	188.5	æ. ⊂	190	7.	A35987	Œ
7		7.6	190	۲.	B40080	vascular endothel
Œ	174.5	7.4	2.7	٤J	A11881	vascular endotheli
£	174		14.0	ر ،	JEORAD	185K secretory pro
10	170.5	7.2	1187	ы	T18355	hypothetical prote
11	164.5	7.0	188	Κ.	JC4680	vascular endotheli
12	158.5	6.7	144	ы	857956	ovine vascular end
1 *	157.5	6, 7	120	Ν	A33787	vascular endotheli
	152	ф. .Л	2871	ы	A55624	fibrillin-1 precu
15	150	6.4	148	N	174.9230	16K vascular endot
7	144	5.1	3002	tú	A47221	fibrillin 1 precur
1.7	143.5	6.1	133	۰۰	B49530	muscular endotheli
<u>-</u>	141.5	6.0	3712	ĸ	\$18253	luminin alpha-1 ch
1.7	141	6.0	149	N	A41236	placental growth f
20	141	6.0	1111	1-5	T26972	hypothetical prote
21	140	5.4	1077	N	F41146	probable cysteine
22	140	5.9	2871	tú	A55567	fibrillin t · bovi
t.	1.38.5	5.9	1810		A32230	tenascin precursor
۲.,	1 48	ر د د	847	ن :	A42112	macin-like peptide
25	147.5	5.8	1104	~	69881	transcription fact
t.,	147.5		1203	r.J	A49175	Motch B protein :
t-7	137.5		1964	63	109059	match4 magse
r N	137		207	ŧ٥	J01679	vascular endotheli
č		ت ص	47.	ı.	A56175	adhesive plague pr

A,Gene: GDB.VEGFC; VKP
A:Gross references: GDR:3890883; OMIM:601528
E:1 12/Domain: signal sequence #status predicted <SIG>
E:13-102/Domain: propeptide #status predicted <PRO>

A:Crass references: EMBL:U58111; NID:q1373426; PIEN:AAB02909.1; PID:q137427

C; Genetics:

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129.5	130	130	131	131.5	132	132	172	133	133.5	134	134	134.5	135	135	
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1106	1220	647	158	2531	1296	1034	129	2321	810	2703	1372	2201	2318	2150	
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N;Alteri	rate name	es: FLT4	owth la ligand	ΞΞ	M C precu	vascular endombernat growth factor c precifsor - numan N;Alternate names: FLT4 ligand DHM
G:Date:	27-Apr-1	996 #SG	quence (man)	3	ision of	1996 #text_change #8-cet+1999
C: Acces	sion: 869	207; 55	1795; 8		43, 86920	
EMBO J.	15, 1751	1996	7		11000	CHARLESTER, 1900, CHARLESTON OF FIRE PURPOR STATES OF FIRE
A; Title A, Refere	sace numb	endum: A Ser. 369	novel 207; MU	Ψa	scular end: :96203094	A;Title: Corrigendum: A novel vascular endothelial growth factor, VEGF-C, is a ligand A,Reference number. S69207; MUID:96203094
A; Status	A; Status: nucleic a	e acid	sequenc	Ó -	ot shown	
A; MOLOCI A; Resido	11e type: 1es: 1-41	.9 <jou></jou>			A; Molecule type: mrNA A; Residues: 1-419 <jou></jou>	
A,Cross	the nucl	es. EMB	L.X9421 Sequenc	\$ E	NID.qll77 Vas submit	188, PIDN.CAA63907.1, PID:e2221096; PID:qllk
A; Note:	only a p	part of	the tra	S	lation is	shown
R: Jouko	7, V.; PE	ijusola,	K.; Ka	55	inen, A.;	A:Note: this is a revision to the sequence from reference solves. R:Joukov, V.; Pajusola, K.; Kaipainen, A.; Chilov, D.; Lahtinen, I.; Kikk, E.; Saksel
A;Title	: A novel	vascul	ar endo	2	worth draw	h tactor, VEGF-C, is a ligand for the Fit4
A; Refer	ence numb	юг: S61	795; MO	10	96178224	
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A; Resid	108: 70-4	119 <jou< td=""><td>7</td><td></td><td></td><td></td></jou<>	7			
A; Note:	this sec sion: 571	quence h .443	as been		rvised in	ceterence 869207
A; Moleci A; Residi	ies: 'X',	104-120	n <j0u2></j0u2>	•		
R, Lee, .	od to the	ALT YE	an, J.; ata Lih	Ĭ :-	or, becemb	R,Lee, J., Gray, A.: Yuae, J.; Marb, S.M.; Arraham, H.; Wood, W.I. submitted to the EMBL Data Library, December 1995
A;Descr	iption: V	/ascular	endoth	Ē	ial growth	factor related protein (VRP): A ligand and
A; Acces:	A; Accession: 869208	9208	100			
A; Moleci	A; Molecule type: mRNA	mRNA				
A; Cross	referenc	Tes. EMB	1.04314	60	A;Cross references. EMBL.043142, NID.41150988,	988, FIDN:AAA85214.1; PID:q1150989
R; Morri:	R;Morris, J.C. Submitted to the EMBL Data Library, May	· EMEL D)) (1)	Ī	TY MAY 1496	
A; Refer	once numb	жет: H01	557			
A; Status	Status: preliminary; translated	ninary;	transla	6	1 from CB/EMBL/DDBJ	MRL/DDBJ
A; Moleci	A:Molecule type: mRNA	mRNA				
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C:Accession: S08167
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                                               1.24°C (TENMER) ADMINISHMUNDEM COVERNO TERRODIKKUMKWNANI OSCIBITIAHKAKPASCI. 1.308
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75.7%; Pred. No. 9.8e
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J. Biol. Chem. 266, 11947-11954, 1991
A:Title: The human gene for vascular endothelial growth factor. Multiple protein form
A:Reforence number: A40454: MUID:91268072
                                                                                                                                                                                                                                            A:Cross-references: GB:M32977; NID:q181970; PIDN:AAA35789.1; PID:q181971 R; Weindel, K.; Marme, D.; Weich, H.A.
                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1 140, 'N'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Science 246, 1306–1309, 1989
A;Title: Vascular endothelial growth factor is a secreted angiogenic mitogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-reterences: GB:M27281; NID:q340300; PIDN:AAA36807.1; PID:q340301
R;Leung, D.W.; Cachianes, G.; Khang, W.J.; Goeddel, D.V.; Ferrata, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-165, 183-232 + KEC>
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A;Accession: A40079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Keek, P.J.; Hauser, S.D.; Krivi, G.; Sanzo, K.; Warren, T.; Feder, J.; Connolly, D. Science 246, 1309-1312, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-140, 'N', 183-232 *T12+
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A; Accession: A41551
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Mol. Endocrinol. 5, 1806-1814, 1991
A:Title: The vascular endothelial growth factor family: identification of a fourth mo
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N.Alternate names: vascular permeability factor
                                          A;Reference number: JQ1463; MU1D:92231879
A;Accession: JQ1463
                                                                                                                                        A;Title: ARS-associated Kapesi's sarroma cells in cellure express vascular endotheli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: not compared with conceptual translation
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A; Molecule type: mRNA
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A:Accession: A34492
A:Melecule type: protein
A:Mesidnes: 27-45,44-49 'R':72-76,'0',78-81:59-71 <CON>
C:Comment: The most common of several alternatively spl
C:conetics:
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andiogenesis; dimer; disulfide bond extracellular processor astatus prodicted AV20 Pri-222/Product - wascular andatholial growth traits 226 processor astatus prodicted AV20 Pri-165,183-242/Product - wascular andatholial growth traits (194 processor astatus prodicted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 194 procursor astatus prodicted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 121 procursor astatus prodicted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 121 procursor astatus prodicted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 121 procursor astatus producted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 121 procursor astatus producted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 121 procursor astatus producted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 122 procursor astatus producted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 123 procursor astatus producted AV20 Pri-164,227-242/Product - wascular andatholial growth interect 124 procursor astatus producted AV20 Pri-164,227-242/Producted AV20 Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-242/Pri-164,227-24/Pri-164,227-24/Pri-164,227-24/Pr
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A:Poss-reteronces: EMHL:X64568; NID:q37658; PIDN:CAA4447.1; PID:q37659
A:Experimental source, AUS Edgesi's survey will
A:Accession: JU1464
A:Accession: JU1464
A:Malocule type: mRNA
A:Malocule type: mRNA
A:Residues: 1-140,'N',227-242 kWE2
A:Experimental source— AUS-Expesi's sarrowns well
A:Experimental source— AUS-Expesi's sarrowns well
K:Connolly: D-T : Olander, J-V : Henvelman, D-J welsen, B-J Monsell, B-J Siegel, N.; Hay
A:Experimental source— AUS-Expesi's sarrowns well
K:Connolly: D-T : Olander, J-V : Henvelman, D-J welsen, B-J Monsell, B-J Siegel, N.; Hay
A:Experimental source— AUS-Expesi's sarrowns well
A:Experimental source— AUS-Expesition for the latter from 1007 could
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                                                                                                                                                                                                                                                                                                               A:Molecule type: mRNA
A:Residues: 1-190 -SHA -
A:Cross-references: GB.X81380: NID.d587559; FIDN.CAA57143.1; PID:g587560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Risharma, H.S.: Tang, Z.H.: Gho, B.C.G.: Verdomw, P.D. Biochim, Blophys. Acta 1260, 235-248, 1995.
Arilite: Bhothories eguence and expression of the position vascular embedial growth Arketeronce number: 852130; MUID:95143284.
ArAccession. §52130.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A:Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C:Accession: S52130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vascular endothelial growth factor - pig
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OMIM:192240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ardenet GDB:VEGF
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Hest Local Similarity 24.2%, Fred. RJ. 1.80 08,
Matches 68; Conservative 33; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comment: The most common of several afternatively spliced forms is VEGF 165
                                                                                        Query Match
         Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110 KP--HOOOHIGEMSELOHNKCEOPPKKOPARQEKKSVPOK---GKOOKPKRKKSPYKS-- 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14 LLLYLHHAKWSQAAPMAEGGGQNHH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR TIMEVEYPPEWRMEROLD PROGWERNERBSYSTERSTEISTERSTEISTERSTERSTERSTEILKSTEILEWRK 127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TVPLSHGPKPVTVSFANHTSCECMSKLDVYRQVHSTTRESLPATQTQCHVANKTCPKNHV 247
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8.1%;
27.5%;
Score 191.5; DB 2;
Pred. No. 4.3e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------EVVKFMDV-YQR 49
         A35987
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A:Cross-references: GB:M95200; NID:q202350; PIDN:AAA40547.1; PID:q202351 A.N-TE Sequence Extracted from NCRI backbone (NCBIN:110665, NCBID:]10675) R:Rosenthal, R.A.; Medyesi J.E.; Henzel, W.J.; Ferrara, N.; Folkman, J. Growth Factors 4, 54-59, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C.Species. Mus. musculus (house mouse)
C:Date: 03-Feb-1994 #sequence_recision 03-Feb-1994 #text_change 05-Nov-1999
C:Agrossion: R44881: A43481; A41029
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A:Residues: 27-36 <ROS>
C:Keywords, ulternative splicing, angiogenesis; dimer; disulfide hund; qlycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R.Claffey, K.F.; Wilkison, W.O.; Spiewelman, B.M.
J. Biol. Chem. 267, 16317-16322, 1992
A;Title: Vascular endothelial growth factor. Regulation by cell differentiation and
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Development 14, 521-532, 1992
A.Tille, Expression of das allar end the final frowth factor during entryonic anglogenes
A.Reference number: A44881; MSID:92274860
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Mosidies: 1-115, TEMT, 114-149 <CLA>
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A; Residues: 1-190 < BRE>
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                                                                                                                                                                                                                                                                                                                                                          176 STNYTSKTUFUCTVPLSHCPKPV IVSFANHTSCROMSKLDVYRGVHSIIRRSLPATOTO 244
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                                                                   288 FTOOTVOKOOVERTSOOFEKELERASOOFMSKNKLLESSOGENKEEDEEKOOC 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116 EILKSIDTEWEKTQGMPREVCYDLGKEFGATTNTFFKFPCVSTYROGGOONSEGLQCMNI 175
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T16 Enderstoneweriggmeenvovergebergalimieergovstykgggggneengiggmni 175
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                                                                                                                                                                                                                                                                                                                                                                                                                              R EVIKEMOV-YJESYCEPTETTVOTEČEYDOSTEVIEKPSOVELMECAGOONDEALECVET 96
                                                                                                                                           SESSITMO IMPIK -- - PHOSOBIOEMSELOBSECECEPEKED-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.0%; Score 188.5;
22.7%; Pred. No. 7.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30, Mismatches
-NIDSKCKARQL-----ELNERTCRC 185
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A:Accession: R:CCHC
A:Molecule type: mRNA
A:Besidnes: 27 190 - LIS -
A:Cless interences: GB:MAIR.B.; NID:q16.880B; PIDN:AAA.80804.1; PID:q16.8809
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Colare: 40 Jun 1992 #becquence revision 40 Jun 1992 #text change 65 Nov 1999
Colaression: B40080; B44787; A43255
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                                                                                          Richan, D.; Rayne, M.E.; Sederman, D.D.; Kwek, P.W.; Sullivan, K.A.; Palisi, T.M.; Nepe, Proc. Natl. Acad. Sci. U.S.A. 87, 2628-2632, 1990
ArTitle: Amino acid and cDNA sequences of a vascular endothelial cell mitogen that is in Assertence number: A 65987; MOLD:90207249
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F;100/Binding site: carbohydrate (Asn) (covalent) #status predicted
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Fi27/199/Product: vascular endothelial growth factor #status predicted MAT
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A:Residues: 27 (1) (FER)
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A;Accession: A33255
A:Molecule type: protein
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A:Ettle: Pituitary follicular cells secrete a novel heparin-binding growth factor speci
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C:Species: Raftus norvegious (Norway rat)
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22.1%; Fred. No. 7.1
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J. Exp. Med. 172, 1835-1845, 1990
A.Titie. Vascular permeability factor, a tumor derived polypeptide that induces endot
A;Reference number: A60932; MOID:91079755
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N;Contains: vascular endothelial growth factor-2; vascular permeability factor
C;Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                    C:Keywords: alternative splicing: andiogenesis: disultide bond; glycoprotein; homodim E:L 26/3+main; signal sequence #status predicted \SIG+ E:A7 214/Troduct; vascular endothelial growth factor 3 #status experimental MAT
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C:Comment: Homodimers could be demonstrated for recombinant VECF-z but not VEGF-3.
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A;Residues: 27 46 \sugs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A:Accession: $52136
A:Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochim, Biophys. Acta 1224, 465:470, 1994
A:Fitle: Prbareed expression of multiple forms of VEGE is associated with spontaneous
A:Reterence number: $52146; MULD:95101726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Sugihara, F.: Kaul, S.C.; Mitsui, Y.; Wadhwa, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein
A; Residues: 27 3 3 CLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: A60932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross references: GB:S38100; NID:g249860; PIDN:AAB22254.1; PID:g249861
A;Note: sequence extracted from MEBI backbone (MEBIN:197624, MEBI:197625)
R;Clauss, M.; Gerlach, M.; Gerlach, H.; Brett, J.; Wang, F.; Familletti, P.C.; Pan, Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A: Residues: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mkNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: C44881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Note: sequence extracted from NCBI backbone (NCBIN:104677, NCBIP:104678)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Experimental source: embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A:Residnes: 1-214 <BRE-
A:Cross references: GB:837052; NID:q249856; PIDN:AAB22252.1; PID:q249857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: A44881; MUID:92274860
A; Accession: A44881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Title: Expression of vascular endothelial growth factor during embryonic anglogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RyBreier, G.; Albrecht, U.; Ste
Development 114, 521-532, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: A44881; C44881; A60932; S52136
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        Query Match
        7.6%; Score 179.5; DR 2; Length 190;

        Bost Local Similarity
        26.8%; Pred. No. 3.2e-06;

        Matches
        49; Conservative
        40; Mismatches
        63; Indels
        41

                                                                                                                       Best Local Similarity
116 ETLESTDIEWRKIQGMPREYCYDIGAEFGATTNTFFKPPCVSTYRCGGCCNSEGLQCMNI 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  183 CRC 185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                139 ENPOGEOSERREILEVODEOTOROSOR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2/31/ TQTQ*HVANKTOFKNHVWNNQ1OROLAQHDFCFSSHLGDSDTSEGFH1OGFNK-ELDEET/ 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176 STNYTSKTLFETTVPL----SHOPKPV-TVSFANRTSCHAMSKLIVYHQVHSTTRRSLIA 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 ETTASTOTEMENTOGMERKEVEVENTÄREFGATTNIFFRETATVSTYREGGETENSERTAJOMNI 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36 EVVKEMDV-YQRSFCRPIETLVDIEQEYPDEIEFIFKPSCVPEMRCGGCCNDESLEC - 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----VPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECKPKKDKARQ-
                                                                                     47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -140,209-214 BR2+
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                                                                                     Conservative
                                                                                                                           24.6%;
                                                                                     4.
                                                                                                                       Pred. No. 8.4e-06.
                                                                                                                                                                     Score 174.5;
                                                                                     Mismatches
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                                                                                                                                                                 DB 2; Length 214;
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                                                                                     43; Gaps
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38 EVIKEMBY-YQKSYCKPILILVBIEQBYFDEIEYIEKPSCVPLMRCAGCCNDEALECVPI 96

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RESULT 10
T18:55
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195K secretory protein midde (Chitohomus tentams) (fragment)
185K secretory protein midde (Chitohomus tentams) (fragment)
N.Alternate names: balbiani ring 3 protein
C:Species: chironomus tentams
C:Decies: chironomus tentams
C:Date: 41-Decies: chironomus tentams
C:Date: 41-Decies: 500542
C:Accession, 300542
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A:[Ht]e: Balbiani ring 3 in Chironomus tentans encodes a 185 kDa secretory protein which
A:Accession: JU0542; MUID:90263600
A:Accession: JU0542
A:Molecule type: mRNA
A:Resilues: 1-150 ECC
A:Cross:retorences: GB:M24160
                                                                                 ArStatus: preliminary: 'ranglated from SE/EMBL/DDBJ
ArMolecule type: DNA
ArResidues: 1-1187 <DEN -
                                                                                                                                                                                                         J. Bacteriol. 176, 5929-5937, 1994.
A:Title: An amplifiable DNA region from the Mycoplasma hyperbinis genome
A:Reference number: Z18888; MUID:95014025.
                                                                                                                                                                                                                                                                                                                                                           hypothetical protein P4 - Mycoplasma hyorhinis
CrSpecies: Mycoplasma hyorhinis
CrDato: 15-Oct-1999 #sequence_revision 15 oct 1993 #fort_chingo 07-por-1990
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                         A;Cross-reterences: EMBL:L11447; NIE-g150156; PIE-q664956; PIDN:AAA62228
C:E-netics:
                                                                                                                                                                                                                                                                                                                                 C:Accession: T18355
Apdemetic code: SGC3
                                                                                                                                                                            A: Accession: T18355
                                                                                                                                                                                                                                                                                                       Rolama, G.; McIntosh, M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 7 4%; Score 174; DR 2; Best Local Similarity 27.5%; Pred. No. 6.8e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        151 EC 152
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   176 STRY LSETT FETTYPL SHOPEPPY-TYSEANH LSO WOMENLEVY BY WISH STREET -----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 ISOGPHKELDRASOGOMOKNKILPSSOGENKEEDEEKOQOVOKKI------OPKHHPLN 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 CKSPKUWTDSKCICECS------IPAICECK@IWTG------EACQCICEGONK- 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -NOGNKKEFEKFARFARKNN--PAI--APQVWDADDFEKKEKEKEKEKQKPQOODOGQKWN 100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative 17: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DR 2; :ength 160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67; Indels 48; Gaps
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vasoular endothelial growth factor related factor 167 precursor - mouse N/Alternate names: VKF 167 protein C.Species: Mis musculus (house mouse) C:Date: 10-May-1596 #seguence revision 16 to 1666 -- . . .
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E:1-21/Domain: signal sequence #status predicted \SIG\
E:23-188/Droduct: vascular endothellal growth factor related factor #status predicted
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A;Residues: 1-188 <TOW>
A;Cross:references: GB:043837; NID:g1314335; PIDN:AAC52553.1; PID:q1314336
C;Comment. This factor is a mitogen, that is selective for endothelial cells, and bell ar endothelial growth factors 167 and VEGF 186.
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A:Title: Characterization of the murine VEGF related factor gene.
A:Peterence number: JC4679: MGID:96183052
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R;Townson S: Lagercrantz.
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A;Gene: vrf
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172 RGLELNPDICEC 183
                                                                                                                           281 PNKELDEDTOWN 292
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     413 ----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161 CGGCCNSEGL------GMMNISTNY----ISKILFETTVFLSHGFKFVTVSFANHIS 207
                                                                                                                                                                                                                                                                                                                                                  226 ----RSL--PATOTQCHVANKTOPKNHVWNNQTORCLAQHDFGFSSHLGDSDTSEGFHTG 280
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84 DDGLECVPTGQHQVRMQTLMIQYPSSQLGE---MSLEEHSQCECRPK-----KKESAVKP 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25 GEBSPSHUKKVVMIDVAARAT-COPREVVVPLSMELMSNVVKOLVESTVEVEVGOGCOP 83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative 24; Mismatches 92; Indels 99; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.0%; Score 164.5; DH 2; Length 188; 26.0%, Pred. No. 40-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78; Indels 39; Gaps
                                                                                                                                                                                                                                               - KFLHOUG 171
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KESULT S57956

C;Genetics:

A;Gene: Fbn-1

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vascular oudotholial growth factor (version 1) - begine
Cuspecies: Bos primigenius taurus (cattle)
Cubate: [6 Mar-1990 #sequence revision 16-Mar-1990 #text_change 05 Nov 1999
                                                                                                                                                                                              REYID, W.: Smiley, E.: Germiller, J.: Sanquineti, C.: Lawton, T.: Pereira, L.: Ramirez, J. Biol. Chem. 270, 1798-1806, 1995
Activite: Primory structure and developmental expression of Phr-1, the mouse fibrillin ge
                                                                                                                                                                                                                                                                                                                                    C:Species: Mus musculus (bouse mouse)
C:bate: 23 Mar 1995 #sequence, revision 23 Mar 1995 #text_change lisdan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reflischer, E.; Gespodarowicz, D.; Mitchell, R.; Silva, M.; Schilling, J.; Lau, K.; Crisp
Brochem. Biophys. Res. Commun. 165, 1198-1206, 1989
A:Title: Vascular endothelial growth factor: a new member of the platelet derived growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C: Accession: A33787
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A;Molecule type: mKNA
A;Residues: 1 146 - KED-
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A; Cross references: GB: L29454; NID: q575509; PIDN: AAA56840.1; PID: q575510
                                                                                                                                                                                                                                                                                                        C: Accession: A55624
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A: Mesidues: | 1 | 20 - FIS
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A:Status: proliminary
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A; Accession: $57956
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                               A; Motocute type: mRNA
A; Residues: 1 2871 - YIN-
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                                                                                                  A; Status: preliminary
                                                                                                                                  A; Access four: A55624
                                                                                                                                                                     A; Reference number: A55624; MUID: 95130561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A: Cross references: GB:M33750; NID:q163810; PIDN:AAA30805.1; PID:q163811
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 116 | ELLKS HOTEMPKTQ-MPPEV"VUJJEKEPOATTNTFEKPPCVSTYROCOCCNSECTQOMN1 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           176 STNYISKILFEITVPL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match 6.7%; Score 197.5; DB 2; Length 120; Local Similarity (4.0%; Pred. No. 8.46-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 EVVKEMBV YORSECKETETLVETEQEYEDETEKTSOVELMROGGGGONDESSLEGT--- 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3B EVMKEMOV YORSECKETETLVDTEQEYETETLETLEKESCVELMECGGOODINGESLIGTTE
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A;Molecule type: DNA
A;Mesidues: I 148 <1YT>
A;Mesidues: I 148 <1YT>
A;Closs references: GB:S67522; NID:q456900; PIDN:AAR29224.1; PID:q456902
A;Note: sequence extracted from NCB: backbone (NCBIN:141422; NCBIP:141426)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 07-Apr:1994 #sequence_revision 18-Nov-1994 #text_change 08-oct 1999 C;Accession: 149530
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A;Contents: NZ7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Virol. 68, 84–92, 1994
A;Title: Homologs of vascular endothelial growth factor are encoded by the poxvirus o
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                                                                                                                                                                                                           124 EWRK100
                                                                  180 ISKILFELTVPLSHOPKP-----VTVSFANHISCROMSK 213
96 TIVIVSVIGVSSSSGTNSGVSTNLQRISVTEHTKODOTGR 135
                                                                                                                                                                                                                                                                                                               ternt Similarity
                                                                                                                                            36 DWMRTLDKSGCKERDTVVYLGEEYPESTNLQVNEKCVLVKROSGCONGDGQFCTAVEFRN 35
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                                                                                                                                                                                                                                                                                 31; Conservative
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                                                                                                                                                                                                   MEREVOYDLOKEFOATTNIFFKFFOYSTYROGOO'NSEGLGOMNISTNY 179
                                                                                                                                                                                                                                                                          6.4%; Score 150; DR 2;
41.9%; Pred. No. 0.00036;
rative 16; Mismatches 43
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Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score 1804.5 1747.5 1748.1 199		Length DR 419 1 415 1 1700 1 190 1 190 1	VEST_HUMAN VEST_HUMAN VEST_HUMAN VEST_HUMAN VEST_PIST VEST_RAT
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ALIGNMENTS

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                                                                                                                                                                          Matches 311;
                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                        CARBOHYD
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OHATN
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REPEAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Characterization of murine F1t4 liqand/VEGF-C."; oncogene 15:618-618(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Bukaryota: Metazoa; Chordata: Cianiata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                             PHAM: PE00341; PDGE; 1.
PMINTS: PM00438; GECYSKNOT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "VEGF-C receptor binding and pattern of expression with VEGFR-3 suggests a role in lymphatic vascular development.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kukk E., Lymboussaki A., Taira S., Kaipainen A., Jeltsch M.
Joukov V., Alitalo K.;
                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                      REPEAT
                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                                                                                                  SIGNAL
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PROSTIE; PSO0244; PDGF_1
                                                                                                                                                                                                                                                                                                                                                                                                                              Proteim; PDÖ01629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGD; MGI:109124; Vegte.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P15692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U58112; AAB46707.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Turner K.J., Wood C.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fitz L.J., Morris J.C., Towler P., Lond A., Burdess P., Greco R.,
Wang J., Gassaway R., Nickbard E., Kovacic S., Ciarletta A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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CELL GROWTH.

CELL GROWTH.
RSVSSVDELMI VLYPEYWKMEKOQLIRKOOWQHNREHSSSDI RSDDSLKEAAAHYNAELLK - 119
                               MHLLCFLSLACSILAAALIPSPREAPATVAAFESGLGFSEAEPDGGEVKAFEGKDLEEGL 60
                                                           MILLEMESTOCCEAAGAVELOPRO-PPVAAAYESCHGYYEEEPGAGEPKAHASKULEEQE SS
                                                                                                                                                                                                                                                                                                                                                                    PS50278; PDGF_1; 1.
PS50278; PDGF_2; 1.
Growth tool
                                                                                                                                                                                                                                                                                                                                                                 Growth factor; Glycoprotein; Signal; Repeat.
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                                                                                              Conservative
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                                                                                                         74.2%; Score 1747.5; DB 1
74.0%; Pred. No. 5.8e-130;
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294
318
342
361
171
                                                                                                                                                                          46471 MW;
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                                                                                              47; Mismatches 65;
                                                                                                                                                                          N-LINKED (GLONAC, . . .) (POTENTIAL), N-LINKED (GLONAC, . . . ) (POTENTIAL), N-LINKED (GLONAC, . . . ) (POTENTIAL), D9D3DD3CECC65916 CRC64;
                                                                                                                                                                                                                                     4 (PARTIAL)
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G03376;
                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration letween the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pagisson G., Lendahi U., Galli J., Ericsson C., Wieslander L.;

"The Halbiani ring 3 gene in Chironomus tentans has a diverged repetitive structure split by many introns.";

J. Mol. Biol. 211:331-349 (1590).

-i- FUNCTION: USED BY THE LARVAE TO CONSTRUCT A SUPRAMOLECULAR SIBURCTION: USED BY THE LARVAE TO CONSTRUCT A SUPRAMOLECULAR ROLE AS A TRANSFORT PROTEIN THAT BINDS TO OTHER PROTEINS INTRACELULARDY AND IN THE GLAND LUMEN IN GREEK TO PREVENT THESE FROM FORMING WATER-INSULURE FIREPS TOO EARLY
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01-001-1994 (Ref. 27, Last sequence update)
01-001-1994 (Ref. 40, Last annotation update)
                                                                 Repeat; Signal SIGNAL
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or sond an omail to licenseasche et et
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID 7153;
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                                                                                                                              PRINIS: PROOBTO; MINEMATORE
                                                                                                                                                                                                   HSSP: P18055; 2MKB
                                                                                                                                                                                                                                                                EMBL; X52263; CAA36506.1;
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                                                                                                                                                                                                                                                                                                                              send an email to licensesish-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBCELLULAR LOCATION: SECRETED.
TISSUE SPECIFICITY: SALIVAPY GLAND
DOMAIN: HAS 82 APPROXIMATE REPEATS OF CYS-X-CYS-X-CYS
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1700 AA;
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   186145 MW:
                                  BALBIANI RING PROTEIN
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01-APR-1990 (Rel. 14, Last sequence update)
20-AUG-2001 (Rel. 40, last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGF) (VASCULAR PERMEABILLTY FACTOR) (VPF).
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MEDITINE 90062112; PubMed=2584205; Connolly D.T., Olander J.V., Heuv
                                                                                                                                                      "AIDS-associated Kaposi's sarcoma cells in culture express vascular endothelial growth factor. \ref{eq:condition}
                                                                                                                                                                                                                      MEDLINE 92231879; PubMed=1567395; Weindel K., Marme D., Weich H.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

MEDLINE=912b8U72; PubMed-1711045;

Tischer E., Mitchell R., Hartman T., Silva M., Gospodarowicz D.,

Fildee J.C., Abraham J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PDGF
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                                                                                                                                                                                                                                                                                                                                                                                    protein forms are encoded through alternative exon
                                                                                                                                                                                                                                                                                                                                                                                                              "The human dece for vascular endothelial growth factor. Multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Science 246:1309-1312(1989)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-90069608; PubMed 2479986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
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                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Vascular permeability factor, an endothelial cell mitogen related to
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                                                                                                                        Biophys. Res. Commun. 183:1167-1174(1992)
                                                                                                                                                                                                                                                                                                                                                  Chem. 266:11947-11954(1991).
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t FUNCTION, GROWTH FACTO
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Fairbrother W.J., Keenan C.J., Meng G., de Vos A.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The crystal structure of vascular endothelial growth factor (VEGP) retined to 1.93 A resolution; multiple copy flexibility and receptor
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endothelial growth factor homodimers in jusect cells.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Siegel N., Haymore K.L., Leimaruber K., Feder J.:
"Human vascular permeability factor, Isolation from U937 cells.";
                                                                             entities requires a licease agreement (See http://www.ish-sib-ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Starovasnik M.A.:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Solution structure of the heparin-binding domain of vascular
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                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE PIGE/VEGE FAMILY OF CROWLE FACIORS
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M63977; AAA36804.1;
X62568; CAA44447.1;
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M63971;
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M63976; AAA36804.1; JOINED.
M63977; AAA36804.1; JOINED.
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215 AA;
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A40454
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-NTDSRCKARQL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.5%; Score 199; DB 1;
22.9%; Pred. No. 7.6e-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Glycoprotein: Alternative splicing: Signal:
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N-LINKED (GLONAC: ...).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7B9759AD5871FF33 CRC64;
                                                                                    ---- CGPCSERRKHLFVQDPQTCKCSCK
-ELNERTORG 210
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ol-FEH-1996 (Rel. 43, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAK ENDOTHELIAL GROWTH FACTOR REBUUKSOR (VEGF) (VASCULAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF_PIG STANDARD;
P49151;
Ol-FEB-1996 (Rel. 33, Created)
                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                         DISHE
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PROSITE: PS50278: PDGE_2: 1.
Mitodon: Srowth factor: Glycoprotein: Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Profes, Problems Profes 1. SMART: SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plam PF00341; PDOF: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X81380; CAA57143.1; -. HSSP: P15692; 2V0H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license marcoment (See http://www.ish.all.or.send.an.email.to.licensedisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochim. Biophys. Acta 1260:235-238(1995)
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL CELL GROWTH. INDOCES ENDOTHELIAL PROLIFFRATION AND VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     endothelial growth factor."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sharma H.S., Tang E.H., Gho B.C.H., Verdouw P.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIJINE-95143284; PubMed-7841203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WIBI_FaxID 9823,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota: Metazwa: Cherdata: Craniata: Vertebrata: Enteleostomi:
Mammalia: Entheria: Cetartiodactyla: Snina: Snidae: Sus.
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                                                                                                                                                                                                                                                                                                                      CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                           NIVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Nucleotide sequence and expression of the poscine vascular
                                                                                                                                                                           116 ETTKS TOTEWRKT@GMOREVOVDI OKEFOA ITNOGERKODOVS I POGGOVINSEGI QOMNI - 175
143 GROSERREHI EVOCEPOTOROSOR - - - - - - - NOSR - - - - - CKAROJE NER FORO 188
                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY). SIMILARITY REFORS TO THE POSE/VERY FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: SECRETED BUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: HOMODIMER: DISULFIDE-LINKED (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IN THE EXIKAMELLULAR MAIRIX UNLESS RELEASED BY HEPARIN (BY
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                                                                    PTEETNIIMQIMKI STELLIGE COTMATICENSCECES TRABLE -----
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                                                                                                                                         EVVKEMBV-YQRSYCKPIETLVDIFQEYFDETEYTFKFSCVFLMKCGGGINDEGLEC--V-94
                                                                                                                                                                                                             Conservative
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51
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                                                                                                                                                                                                                          8.1%; Score 191.5; DB 1;
27.5%; Pred. No. 2.6e-08;
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N-LINKED (GLCNAC. . .) (PO)
                                                                                                                                                                                                                                                                                                                                              VASCULAR ENDOTHELIAL GROWTH FACTOR BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL
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                                                                                                                                                          Length 190;
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EVVKEMBY YORSYCRPIETLVDIFOEYPDEIEYI 71

34; Mismatches 68;

Indels 99; Gaps

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Length 190;

Matches

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Conservative

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VEGE_R
                                                                    guery Match 8.0%; Score 188.5; DB 1
Best Local Similarity 22.1%; Pred. No. 4.5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restuse by non-profit institutions as long as its content modified and this statement is not removed. Usage by a
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01-AUG-1990 (Rel. 15, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWIH FACTOR PRECURSOR (VEGF) (VASCULAR
                                                                                                  DISULFID
                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                  PROSITE: PS00249: PDGF_1: 1. PROSITE: PS50278: PDGF_2: 1.
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or send an email to licensewish-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -1- SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
-1- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Amino acid and cDNA sequences of a vascular endothelial cell mitogen that is homologous to placeler derived growth factor.";
Proc. Natl. Acad. Sci. U.S.A. 87:2568-653(1990).
-i- FUNCTION: GROWTH FACTIOR ACTIVE IN ANGLOGENESIS, AND ENDOTHELIAL
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Mammalia; Eutheria; Rodentia: Scinrognathi; Muridae; Murinae; Kattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PERMEABILITY FACTOR) (VPF).
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                                                                   SEQUENCE
                                                                                    CARHOHYD
                                                                                                                    DISULFID
                                                                                                                                      DISULFID
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                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                     Mitogen; Growth factor; Glycoprotein; Signal.
                                                                                                                                                                                                                                                                       SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                     ProDom; PD001629; PDGF; 1.
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                                                                                                                                                                                                                                                                                                                     InterPro: IPk000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PARTICULARLY IN SUPRAOPTIC AND PARAVENTRICULAR NUCLEI AND THE CHOROLD FLEXUS. ALSO FOUND ABUNDANTLY IN THE CORPUS LUTEUM OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY).
TISSUE SPECIFICITY: EXPRESSED IN THE PITUITARY,
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                                                                                                                                                                                                                                                                                                                                                                            М32167,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                    22496 MW;
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                                                                                                                                  BY SIMILARITY.
BY SIMILARITY.
                                                                   N-LINKED (GLONAC...).
; 589374010441F377 CRC64;
                                                                                                 INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                                      VASCULAR ENDOTHELIAL GROWIN FACTOR
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West Local Similarity
                              Durany Matrob
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Ol AUG 1992 (Ref. 23, Freated)
Ol AUG 1992 (Ref. 23, Freated)
Ol AUG 1992 (Ref. 23, Last sequence update)
20 AUG 2001 (Ref. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWIN FACTOR (VEGT) (VASCULAR PERMEABILITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAVEO
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                                                                                                                                                                                                       THE HISTORY
                                                                                                                                                                                                                                     OLEMENT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro: [PRO00072; PDOF: Plam: PFO034]; PDOF: 1
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HSSP; P15692; 2VGH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib-ch/insenses
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20 AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGE) (VASCULAR
PIR; A33255; A33255
              EMBL: M32976; AAA30502.1;
EMBL: M31836; AAA30804.1;
EMBL: M33750; AAA30805.1;
                                                                                               entities requires a license agreement (see http://www.isb.sib.ch/ammouse/
or send an email to licensewisb-sib.ch).
                                                                                                                                          modified and this statement is not removed.
                                                                                                                                                           the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
                                                                                                                                                                                                 This SWISS-PAOT entry is copyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation :
                                                                                                                                                                                                                                                                                                                                                                                                     Lactor specific for vascular endothedial cedls.";
Biochem. Biophys. Res. Commun. 161:851-858(1989).
-1- FUNCTION: GROWTH PACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 27:31.
MEDITNE 89286596; PubMed 2735925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  derived growth factor gene family.";
Biochem. Biophys. Res. Commun. 165:1198-1206(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tischer E., Gospodarowicz D., Mitchell R., Silva M., Schillina J., Lau K., Crisp T., Fiddes J.C., Abraham J.A.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 27-190 FROM N.A. MEDILINE 90121225; PubMed 2610687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mitogen."
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Bovidae: Bovinae: Ros.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Science 246:1306-1309(1989)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Vascular endothelial growth factor is a secreted angiogenic
                                                                                                                                                                                                                                                             -1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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01-001-1996 (Rel. 34, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH PACTOR PRECUESS (VEGF) (VASCULAR PRECMEABILITY FACTOR) (VPF).
                                                                                                               Breier G., Albrecht U., Sterrer S., Risan W.:
"Expression of vascular endothelial growth factor during embryonic
angiogenesis and endothelial cell differentiation.";
                                                                                                                                                                                                          Eskaryota: Metazoa: Chorduta: Graniata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Rodentia: Sciuroquathi: Muridae; Murimae; Mus
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Mitogen: Growth Lactor
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ProDom; PD001629; PDGF; 1.
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                       differentiation and activated second messender pathways.";
                                                              SEQUENCE FROM N A (VFOF-1)
MEDLINE 92455593; PubMod-1644816;
                                                                                                      Development 114:521-532(1992).
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                                    Claffey K.F., Wilkison W.O., Spiegeiman B.M.
"Vascular endothelial growth factor, Regulat
                                                                                                                                                          MEDI.INE-92274860;
                                                                                                                                                                     SEQUENCE FROM N.A.
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            Biol. Chem. 267:16317-16322(1992).
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26.8%;
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J. Biol. Chem. 271:3877-3883(1996).
-i- FUNCTION: GEOWITH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL CELL GROWTH, INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIINE-96216498; PubMed-8632007; Skima D.T., Kuroki M., Leutsch D., Na Y., Adamis A.F., U'Amore P.A.; The mouse gene for vascular endothelial growth factor. Genomic structure, definition of the transcriptional unit, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGD; MG1:103178; Veqf.
InterPro: 1PR000072; PDGF.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL: $38083; AAB22253.1; -. EMBL: $38100; AAB22254.1; -. EMBL: $95200; AAA40547.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to licensewish-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for comme
                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE: PS00249; PDGF_1; 1. PROSITE: PS50278; PDGF_2; 1.
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THE CHOROLE FLEXUS, FARAVENTRICULAR NEUROEPITHELIUM, PLACENTA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KIDNEY GLOMERULI. ALSO FOUND IN BRONCHIAL EPITHELIUM, ADBENAL GLAND AND IN SEMINIFEROUS TUBULES OF TESTIS. HIGH EXPRESSION OF VEGE CONTINUES IN KIDNEY GLOMERULI AND THOROTO FLEADS IN AUDILIS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HEPARIN
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24.6%; Pred. No. 6.3c-07;
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GE -> EF (IN REF. 2).
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VASCULAR ENDOTHELIAL GROWTH FACTOR
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hey, Riol, 169:599-712(1995).

FURCTIONS GRAWIH FACTOR ACTIVE IN ANTIOCENISTS, AND ENDOTHER CELL GRAWIH, INDUCES ENDOTHERIAL PROLIFERATION AND VASCULAR
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P52582; 931420;
01 oct 1996 (Ref. 84, Created)
15 JUL 1998 (Ref. 86, Last seq
                   between the Swiss institute of Hoinformatics and the EMM, outstation the European Hoinformatics Institute. There are no restrictions on 10 use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Planume 1., von Boutern M., Drexler H.C., Syed-Ali S., Risau W.; "Divergrossion of pascular endothelial growth tactor in the adiam embryo induces bypervascularization and increased vascular permeability without alterations of embryonic pattern formation.";
entities requires a license agreement (see http://www.isb-sib-ch/annonnee/
                                                                                                  this SWESS PROFESTRY is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *Vascular endothelial growth factor (VEGF) and VEGF receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDITAL 95301109; PubMed 7781909;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (FEH-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Takahashi
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20 AUC 2001 (Ref. 40, Last annotation update)
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                                                                                                                                          SIMILARITY: BELONGS TO THE PIGE/VEGE FAMILY OF GROWTH FACTORS
                                                                                                                                                                               DEVELOPMENTAL STAGE: THE VEGE-166 FORM IS EXPRESSED EARLY AT DAY I AND IS TECHNOLOGY DRIVEN CASTRULATION. EXPRESSION OF THE VEGE-190
                                                                                                                                                                                                                                                              TISSUE SEESTIFICTIY: ABBINDANTLY AND EQUALLY EXPRESSED IN HEART AND
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ALLERANITVE PRODUCTS: PHREE ISOCHMS (VEGE 150, VEGE 146 AND VEGE-
160, ARE PRODUCTS AS A RESULT OF ALICEMATIVE SPLICING OF THE SAME
CENE. THE LUNGER FORM CONTAINS A HASIC INSERT WHICH ACTS AS A CELL
                                                                                                                                                                  PORM IS DETECTABLE ONLY FROM DAY 2.
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                                                                                                                                                                                                                          IN KTONEY GLOMERULL, BRAIN AND YOLK SAC, VEGE-166 FORM.
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Hest Local Similarity
                           olotsson B. Pajusola K., Kaipainen A., von Pulot G., Toukov V.,
Saksola O., Örpana A., Pettersson K.F., Alitalo K., Eriksson O.:
"Vascular endotleljal growth factor B, a novel growth factor for
                                                                                                                                                                                                                                                                                                                                                                                                           01 off-1996 (Rel. 34, Created)
01-off-1996 (Rel. 34, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAK ENDOTHELIAL GROWTH FACTOR B FRECURSOR (VEGF B) (VASCULAR
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endothelial cells.";
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Mammalia: Eatheria: Rodentia: Sciuroquathi: Muridae; Murimae; Mus
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                                                                                                                       MEDITINE 96197355; PubMed 8637916;
                                                                                                                                                                                 SEQUENCE PROM N.A.
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                                                                                                                                                   FISSUE-Heart:
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INTERCHAIN (BY SIMILARITY).
N-LINKEH (GLCNAC. ...) (POTEN)
K -- N (IN ISOFORM VEGF-166).
MISSING (IN ISOFORM VEGF-166).
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Best Local
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                                   01-007-1996 (Rel. 44, Created)
01-007-1996 (Rel. 44, Last sequence update)
20-AUC-2001 (Rel. 40, Last sequence update)
VASCULAR ENDOTHELIAL GROWIH FACTOR B PEFCHESOR (VEGF-B) (VEGF PELATED
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InterPro: IPR000072; PDGF.
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Nordenskjoeld M., Weber G., Hayward N.K.;
                                                                                                                    VEGH_HUMAN
P49765;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE 95183052; PubMed 8507868;
                      FACTUR)
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FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS. BINDS HEPARIN.
SUBUNIT: HOMODIMFF: DISULFIDE-LINKED. CAN ALSO FORM HETERODIMER
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                                                                                                                                       STANDARD;
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Best Local Similarity 21.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-96197355; PubMed 8637916;
Olefssen B., Pajusela K., Kaipainen A., von Euler G., Jeukov
Saksela O., Orpana A., Pettersson R.F., Alitalo K., Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE: PS90249; PROF_1: 1.
PROSITE: PS90278; PROF_2: 1.
PROSITE: PS90278; PROF_2: 1.
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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Enteleostomi:
Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.
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MIM; 601398; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN.
-!- TISSUE SPECIFICITY: EXPRESSED IN ALL TISSUES EXCEPT LIVER.
HIGHEST IFVELS FOUND IN HEART, SKELETAL MUSCLE AND PANCHEAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome Res. 6:124-131(1996).
-1- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS. HINDS HETAKIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Closing and characterization of a movel human gene related to vascular endothelial growth factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Grimmond S., Lagercrantz J., Drinkwater C., Silins G., Townson S., Pollock P., Gotley D., Carson F., Pakar S., Nordenskjoeld M., Ward L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-97077124; PubMed-8919691;
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Best Local Similarity 8.0%; Pred. No. 7.2006;
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"Characterization and expression of vascular endothelial growth factor (VESE) in the owline corpus luteum.";
J. Keyrod. Fertil. IOB/157-165(1996).
J. EUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHEL CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR FREMERICLERY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (see http://www.ist-sib-b/armeeney) or send an email to license darcement (see http://www.ist-sib-b/armeeney)
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VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGE) (VASCULAR
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HSSP; P15692; TVPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and to commer
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cta K., Kamwar Y.S.;
Submitted (APR-1995) to the EMHL/Georgank/Debt databases.
submitted (APR-1995) to the EMHL/Georgank/Debt databases.
-i- PUNCTION: STRUCTURAL COMPONENT OF CONNECTION: GISCHOFTHRILS
THAT HINDS CALCIUM, FIRRILLIN-1-CONTAINING MICROFTBRILS PROVIDE
LONG-TERM FORCE HEARING STRUCTURAL SUPPORT.
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SMART; SM000001; EGF_like; 4
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Plam; PF00683; TB; 9.
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Search completed: February 20, 2002, 16:27:44 Job time: 171 sec

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Post-processing: Minimum Match 0%
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

1 2342 99.5 418 2 1779 75.6 420 677 28.8 458 677 28.3 458 4 56.5 27.0 426 6 556 23.6 126 7 232 9.9 1698		04.4915 0.48915 0.48915 0.48915 0.48925 0.4898	46
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Query Match

99.5%; Score 2342; DB 13; Length 418;

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Best Local Similarity 7.69%; Prod. No. 1.8e-164
Matches 41; Conservative 45; Mismatches 61
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01-NOV-1995 (TrEMBLEEL 12, Created)
01-NOV-1995 (TrEMBLEEL 12, Last sequence update)
01-JUN-2001 (TrEMBLEEL 17, Last annotation update)
VASCULAR ENJOTHELIAL GROWTH FACTOR C PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi;
Mammalia; Entheria; Cetarfiodactyla; Rominantia; Pecora; Bovoidea;
Bovidae; Bozinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Liu X., Yonekura H., Yamaqishi S., Yamamoto Y., Yamamoto "Strueture and expression of begine VEEF Lamily."; Submitted (MAY 1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                        "Vascular endothelial growth factor D (VEGF-D) is a ligand for the tyrosine kinases VEGF receptor 2 (FIRI) and VEGF receptor 3 (FIR4).": Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
EMBL: Y12864: CAA73371.1: ...
EMBL: Y12865: CAA73371.1: JOINED.
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01-JUN-1998 (TrEMBLIE). 06, Last sequence up
01-JUN-2001 (TrEMBLIE). 17, Last annotation
EMBL: Y12868; CAA73371.1; JOINED.
EMBL: Y12869; CAA73371.1; JOINED.
EMBL: Y12870; CAA73371.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rocchidiani M., Lestingi M., Luddi A., Orlandini M., Franco B., Rossi E., Hallabio A., Zuttardi O., Oliviero S.; "Human Fite: cloning, dene structure, and mapping to chromosome Xp22.1 between the PIGA and the GRPR genes.";
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                                                                            EMBL; Y12866; CAA74371.1; JOINED.
EMBL; Y12867; CAA74371.1; JOINED.
                                                                                                                                                                                                                                                             Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F.,
Alitalo K., Stacker S.A.;
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDILINE-98118549; PubMed-9435229;
                                                                                                                                                                                                                                                                                                                                                                                                Genomics 42:483-488(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                            VEGE-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE-97349118; PubMed-9205122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genemies 47:207-216(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FIGE OR VEGE-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamada Y., Nezu J., Shimane M., Hirata Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE LUNG:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Molecular cloning of a novel vascular endothelial growth factor,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 LRSVSSVDELMTVLYPEYWKMYKCQLRKGGWQHSTEGANTNIRTGETLKFAAAHYNTEIL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SO TRSVSSVEHTMTVLYDEYMRMEKOOLPESIMOHNEEHSSSEIRSOUSLKEAAAHYNAETL 118
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VRP15CGPHKELDRASCQCMCKNKLLDSSCGPNKEFDEEKCQCVCKK1CPKHHPLNPAKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YLSKTLFEITVPLSQGPKPVTLSFANHTSCRCMSKLDVYRQVHSIIRRSLPAALPQCQAA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YISKTLEEITVPLSHGPKPVTVSEANHTSGROMSKLDVYRQVHSLIRKSLPATQTQCHVA 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RSIDNEWRKTQCMPREVCIDVGKEEGAATNTEEKPPCVSVYKCGGGCNSFGQQCMNTSTS 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KSIDIEWKKIQGMPKEVCVDLGKEFGATINIFFKPPCVSIYRCGGCCNSEGLQCMNISTN 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NKTCPKNHVWNNQ1CECLAQHDFGFSSHLGDSDTSEGFH-1CGPNKELDEETOQCVCKGG-297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NKTGPADY IWNNHVCRCLAQHDF I FSPSAGD - DSADGFHD I CGPNKELDEETT QCVCKGG
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Best Local Similarity 38.98; Pred. No. 1.56-57;
                                                                                                                                                                                                                                                                                                                                                                                 P97946 PRELIMINARY:
P97946;
01-MAY-1997 (TERMELTEL 03, Created)
01-MAY-1997 (TERMELTEL 03, Last sequence update)
01-JUN-2001 (TERMELTEL 17, Last annotation update)
VASCULAR ENCOTHELIAL GROWTH FACTOR D (C-FOS INDUCED GROWTH FACTOR).
                               Yamada Y., Nezo J., Shimane M., Hirata Y.:
"Melecular clening of a more! vascular endothefial growth factor
VEGF-D.";
                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
Eukaryota: Motazoa:
                                                                                                                                                                                   tamily.
                                                                                                                                                                                                   platelet-derived growth factor/vascular endothelial growth factor
                                                                                                                                                                                                                     ordandini M. Marroscini L., Ferruzzi R., Olimiero S.;
"Identification of a c-fos-induced gene that is related to the
                                                                                                                                                                                                                                                                              SIRAIN C57BL/61;
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                     Eukaryota: Motazoa: Chordata: Craniata: Vertebrata: Eutoleostomi:
Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae: Mus
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PROSTITE: PS50278; PDGF_2: |
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EMBL: Y12863: CAA73370.1; -
HSSP: P15692: IVPP.
Genomics 42:483-488(1997)
EMBL: X99572; CAA67892.1;
                                                                                      MEDITINE: 97349118; PubMed 9205122;
                                                                                                                              SECUENCE FROM N.A.
                                                                                                                                                                                                                                                        MFDI INF=97030254; PubMed=8876195;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterProx [PR000072; PDGF.
                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 93:11675-11675(1996)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      353 NPAKOTO POTESPNKOFT KAKPEHHITOSOYPPPOTVRTKRODAGELLAEEVOR 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        213 DROSHSKKLOFILMLWDSNKCKOVLQEE---NPLAGTED-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              114
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EBULRSVSSVDFIMTVLYPPYWKMFKOQIRKGGWQHNREBSSSDTRSDD--SLKFAAAHY 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TQCHVANKTCPKNHVWNNQTCRCLAQHDFGFSSHLGDSDTSEGFHTCGPNKELDEETCQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NISTSYLSKOLFEISVE TAVELVERVANAROOKOLFTAE--HERYSTIRKSIOTEE 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NISTNYISKTLFEITVPLSHGPKPVTVSFANHTSCHCMSKLDVYRQVHS1IPPSLP-ATQ 232
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                                                                                                            LUNG.
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Best Local Similarity
Matches 135; Conserv
PROSITE, PS00249; PDGE_1; 1. FROSITE, PS50278; PDGF_2; 1. SEDIENCE 326 AA; 37112 MW;
                                                                                                                                                                                                                                                                                                                                                                      035251;
01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (FrEMBLrel. 05, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                       STRAIN-SPRAGUE DAWLEY;
MEDITNE-97349118; PubMcd-9205122;
Yamada Y., Nozu J., Shimane M., H
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A
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                                                    SMART; SM00141; PDGF; 1.
                                                                   ProDom: PD001624;
                                                                                   Pfam; PF00341; PDGF;
                                                                                                     InterPro: IPR000072; PDGF
                                                                                                                   EMBL; AF014827; AAF
HSSP; P15692; IVPP.
                                                                                                                                                      Genomics 42:483-488(1997)
                                                                                                                                                                        VEGF-D.";
                                                                                                                                                                                                                                                                                          NCBI_TaxID=10116
                                                                                                                                                                                                                                                                                                            Mammalia; Eatheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    035251
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                                                                                                                                                                                     "Molecular cloning of a novel vascular endothelial growth factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        353 NPAKCIC-ECTESPNKCELKSKHEHHQTCSCYRPPCTVKTKRC 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253 ----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             233 TOCHVANKTODKNIHVMNIQTOROLAQHORORORI ODGOTSBORH OODNKRI OTELOGO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 DTETLKVIDEFWORTOCSPRFTCVFVASFLGKTTNTFFKPPCVNVFRCGGCCNFFGVMCM 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   114 NAETI KSTIYFFWRKTOCMPREVOVDI GKEFGATTNIFFKEDPOVSTYROGGOONSEGLOOM 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46 EUQIRAASSLEELLQIAHSEDWKLWRCRLKL-----KSLASMDSRSASHRSTRFAATEY 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    56 BEQLESVSSVOFIMIVIYEEYWKMEKIQLEKGGWQHNEEHSSSICERSDD--SIKFAAAHY 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DECPHSKKLCPIDMLWDNTKCKCVLQDETPL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VCKGGVEPTSCGPHKELDRASGQGMCENELLESSTGENKELTELKTQFTVCKETCHEHBEL 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NTSTSYISKOLFEISVPLTSVPELVPVKIANHTGCKCLPTGP--RHPYSIIRRSIQTVEE 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             358 AA; 40908 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                      AAH66557.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -BANTASHG-
                                                                   PDGF; 1.
                                                                                                                                                                                                         Shimane M., Hirata Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28.3%; Score 666; DB 11; 39.4%; Pred. No. 1.7e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
 1261AFA373596C00 CRC64;
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Of JAN 1998 (TERMILTEL 05, Created)
Of JAN 1998 (TERMILTEL 05, Last sequence update)
of JUN 2001 (TERMILTEL 17, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR C (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ETRAIN SPRAIDE DAWLEY: IISSUE DINE:
Mandiliota S.J., Popper M.S.;
Shimiliota (JUN 1797) to the EMBLADenviolations database
EMBL APOLOTO, AARG 248.1;
HSSE: P15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSTIE; PS50278; PD6F 2; 1.
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120 FHDVcGP 126
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                                                                            187 door HH 947
                                                                                                                                                                                                                                                                                                                                                                                   106 VSTYROGGOOMSSSACOMNISSINVISKISLIETTVISSHGPKEVIVSFANHISGIROMSKLD 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                            y Match 28.6%; Score 556; DB 11; Length 126;
Local Similarity 75.5%; Fred. No. 2.5e 46;
Hear 101; Conservative 10; Mismatches 14; Indels ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289 BPENCSCERCKESLESCOOKHKMFHPDPC 317
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                                                                                                                                                     61 VYRQVHSTIRRSLFATIFOCQAANKTCPANYVWNNYMCQCLAQQDFTFYSNVED-DSSNG-119
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                                                                                                                                                                                     VYRQVESTIERSJEATOTS/TRANKTSTKHIRWNNOJCROLAGHOFGESSHLGDSDTSKG 275
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Query Match
Best Local Similarity
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Pteryqota: Neoptera: Endopteryqota: Diptera: Nematocera:
Chironomoidea: Chironomidae: Chironominae: Chironomus.
                                                                                        Chironomus thummi (Midge).

Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eteryqota; Neoptera; Eddopteryqota; Diptera; Nemafoceta;
Eteryqota; Neoptera;
                                                                                                                                                                                                                                                                              01 FEB 1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
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01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                   Chironomoidea; Chironomidae; Chironominae; Chironomus NCBL_TaxID 7155;
                                                                                                                                                                                                                    SP220
                                                                                                                                                                                                                                                                                                                                                                                                  094446;
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InterPro: IPR000853; Mtllthion_nemat.
PKINIS; PR00876; MTNEMATODE.
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                                                                                                                                                                                                                                                          220 KDA SILK PROTEIN.
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milarity 23.8%; Pred. No. 1.4e-13;
Conservative 30; Mismutches 122;
                                                                                                                                                                                                                                                                                                                                                                                                                                            CANVINIBAG
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EMBL, 054641. AAA99804 1: -
                                                                                                                                                                                                                                                                                                                    01-MAR-2001 (TERMBIFEL 16, Created)
01-MAR-2001 (TERMBIFEL 16, Last sequence update)
01-JUN-2001 (TERMBIFEL 17, Last sequence update)
01-JUN-2001 (TERMBIFEL 17, Last sequence update)
01261024.6-3 (VASCULAR ENDOTHELIAL GROWTH FACTOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE: PSD0022: PSE_1: CHEN.WWL_1
PROSITE: PS01186; EGF_2: UNKNOWN_1.
SEQUENCE: 1794 AA: 185745 MW, 3A3F2021708F1E28 CROCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterFro: IPR000561: EGF-Like:
InterPro: IPR000853; Mtllthion_nemat.
PRINTS: PR00876: MTNEMATODE.
                                                             Pfam; PF00441; PDGF;
                                                                                                      Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases EMBL; ALI36131; CAC19512.1; -.
                                                                                                                                                                                                                                Eukaryota: Metazoa: Chordata: Craniata: Vertebrata; Eutoleostomi
Mammalia; Eutheria: Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9H1W9
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  PRUSITE;
                    Probom: PDU01629; PDGF; 1.
SMART; SM89141; PDGF; 1.
                                                                                                                                                     Williams S.
                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                NCBI_laxID 9606;
                                                                                                                                                                                                                                                                                Homo sapions (Human)
                                                                                                                                                                                                                                                                                                                                                                                                            09H1M9;
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                                                                                 InterPro: IPR000072; PPSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             963 DEMONOKSEKAWSHOTOKOGOKNADDADIOVA---PQIWLENGO---KOGOPASKOMICA 1016
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QTCPAGUSWDSQTCQCSCP----ATGKCTGAQFWCAKQCKCV 1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KOFLKOKREHHOTOSOYRPPOTVRTKRODAGFILAFEVOROV 408
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENKREDEATCSCVCKSP--MPSVLFEGKKWNNETCALECANVGNCKAPQRWCDNICKCTC 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCACECPPGKA1PASCGURKSWNPOSTSTOTKSKMPSSSTPSNQQWNTETTKTPT--SGT-1356
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KTTOFSGGKWNENQGGGGSPTPAPESSASGKYSNVESSSSSSNVESKFAKSGPSNQVWSENS
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PS00249; PDGF_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative 58; Mismatches 192; Indels 122;
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----EFGATTNTFFKPPCVSIYR----CGGCCNSEGLQCMNISTN 178
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19.5%: Pred. No. 1.8e-13:
                                                                                                                                                                                                                                                                                                                                                                                                                                 PKT;
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                                                                    Query Match 3.0%, Score 211.5, DR 4, Bost Local Similarity 24.2%; Pred. No. 1.6c 12; Matches 68; Conservative 33; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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EMBL: $85224 AAC63101.1;
EMBL: $85199 AAC63101.1;
EMBL: $85201 AAC63101.1;
EMBL: $85201 AAC63101.1;
EMBL: $85222 AAC63101.1;
EMBL: $85222 AAC63101.1;
EMBL: $85222 AAC63101.1;
EMBL: $85202 AAC63101.1;
EMBL: $8502 AAC6
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01-NOV-1998 (TYPHREIZE), 08, Last sequence update)
01-JUN-2001 (TYPHREIZE), 17, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR (FRAGMENT).
                                                                                                                                                                                                                                                                                                   PROSITE: PS00249; PDGF_1; 1. PROSITE: PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Houck K.A., Ferrara N., Winer J., Cachianes G., Li B., Leung D.W.: "The vascular endothelial growth factor family: identification of a fourth molecular species and characterization of alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota: Metazea: Chordata; Gangasa; verseasas - moo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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Fukaryota; Metacca; Chordata; Craniata; Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                            ProDom; PE00341; PDGF; 1.
ProDom; PE001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00341; PDGF;
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LMTVLYFEYWKMFKOQLEKGGWQHNKEHSSSDIRSIDSLKFAAABYNAEILKSIDIEWEK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endocrinol, 5:1806-1814(1991).
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                                                                                                                                                                                                                                             254 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR000072; PDGF.
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24.2%; Pred. No. 1.4
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tches 105;
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                                                                                                                                        Length 254;
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                                                                    Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                    75;
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                                                             Gaps
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RESSILT 11
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Ross Local Similarity 24.5%; Frequence
Marches 58; Conservative 28; Mismatches
060720;
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01 NOV 1999 (TEMBLECL 12, Last sequence update)
01 JUN 2001 (TEMBLECL 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Planc PF00341; PD0F; 1.
Probom; PD001629; PD0F; 1.
SMART; SM00141; PD0F; 1.
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                    04.07.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (MAR 1999) to the EMBL/GenBank/DDRI databases EMBL: AFT44249; AAD29684.1; ...
HESE: PISC42: ZVEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSTIE: PSGOZ/B; PDGF 1; 1.
PROSTIE: PSGOZ/B; PDGF 2; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jingjing L., Roque R.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SECHENCE FROM N.A.
                                                                                                                 17 < ODBOTCKCSCK
                                                                                                                                                        EB5 LIDEETSOOVOKOOVERISOODHKELDRASOOOMSKNKLLPSSOOFNKEEDBEEKOOO 340
                                                                                                                                                                                              148 Корвиникичег
                                                                                                                                                                                                                                                                                                                                                                                              112 HYNAETLKSTDTEWRKTQGMPREVCVDLGKEFGATTNTFEKPFCVSTYRCGGCCNSEGLQ 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROO PISCOPHKELDRASCOMCKNKLLPSSCGPNKEFDEEKCOC 340
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                                                                                                                                                                                                                                                                    93 O VPTEJENTIMOTMRIKIPIGIGJILIGENSELGESKYEZERKERKERKERKERKERKSVROK -- G 147
                                                                                                                                                                                                                                                                                                                                                      44 HKPHEVVKEMDV YORSYCKPTETLVD1FQEYPDETEYTEKPSCVPLMRCGGCCNDEGLE 92
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                                                                                                                                                                                                                                     OTOTHYANK FERNBUMNOD TRETAAUHDESSELGBEIGEBEIGEBUNKE -----
                                                                                                                                                                                                                                                                                                               CMNISTNYLEKTIFETTYPLSHOPKPYTYSFANHTSCECMSKLDYYRQVHSIIKRSLPAT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WNNOT CRCLAQHDESESSHEDDSDTSEGEHICGENKE -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LILLY LINEAKWSQAAPMAEGGGQNHH - - - - - - - -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CVV RCZ
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                    PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24400 MW; 0197A0591F502BBE 0R064;
                                                                                                                                                                                                                                                                                                                                                                                                                8.6%; Score 202.5; DB b; manager = ...
24.5%; Pred. No. 9.5e-12;
24.5 m; Mismatches 77; Indels 73; Gaps
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                    FRT;
                                                                                                                     NTDSRCKARQL -----ELNERTORG 201
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                                                      09XSF5
                                                                          RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 8.6%; Score 202; DE 4; Length 209; Best Local Similarity 22.5%; Pred. No. 1.1e-11;
                                     SASXNO
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01-MAY-1999 (TERMELTOI, 10, Last sequence update)
01-JUN-2001 (TERMELTOI, 17, Last sequence update)
VEGF183 PROTEIN PRECURSOR (VASCULAR ENDOTHELIAL GROWTH FACTOR 183)
(1926-1623.6.6) (VASCULAR ENDOTHELIAL GROWTH FACTOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Identification and characterization of a new splicing variant of vascular endothelial growth factor: VESF183.";
Biochim. Biophys. Acta, Gene Struct. Expt. 1443:400-406(1998).
01-NoV-1999 (FrEMBLrel, 12, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ptam: PF00341; PDGF; 1.
Probom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL: AJ010438; CAA09179.1; -. EMBL: AF062645; AAC16730.1; -. EMBL: AL136131; CAC19514.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota: Metazoa; Chordata; Cianiata; Vertebrata; Euteleostomi;
Mammalia: Eutheria: Primates; Catarrhini; Hominidae; Homo,
                     09XSF5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE: PS00249; PDGF_1; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (MAY-1998) to the EMBL/GenBank/DDRJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jingjing L., Roque k.S.;
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                                                                                                                                   185
                                                                                                                                                                    301 ISOSPHEELDRASCOOMCKNELLESSOOPNEELDEEKOOC 340
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                                                                                                                                                                                                                                             248 WNNQTOROLAQHDEGESSHLODSDESEGEHTOGENKE·····ILDEETOQOVOKGOVKE 400
                                                                                                                                                                                                                                                                                110 KP--HOGORIGEMSFLOHNKGECRPKKDRARQEKKSVRGK---OKOOKKKRKKSKP
                                                                                                                                                                                                                                                                                                                     188 TVPLSHGPKPVTVSFANHTSCHOMSKLDVYRQVHSTIKKSLPATQTQCHVANKTCFKNHV 247
                                                                                                                                                                                                                                                                                                                                                                                            128 TQGMPREVCYDLGKEFGATTNTFFKPPCVSTYRCGGCCNSEGLQCMNISTNYISKTLFEI 187
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                                                                                                                                                                                                                                                                                                                                                                                                                                 14 LLLYLHHAKWSQAAPMAEGGGQNHH------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68 LMTVLYPEYWKMEKOQUEKOGWQHNKEHSSSDIRSDOSLKEAAAHYNAEILKSIDTEWRK 127
                                                                                                                                                                                                                                                                                                                                                         SYCHPIETLYDIFQEYPDETEYIFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRI 109
                                                                                                                                 -- --- -- NTDSRCKARQL-------ELNERTCRC
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                                       FEEL IMINARY;
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                                                                                                                                                                                                                                                                                                                                                                            VEGET83 PROTEIN
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                                     PRT:
                                       214
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Best Local Similarity
Matches 59; Conserv
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SMART: SM00141: PDAF: 1.
PROSITE: PS00249: PD6F: 1: 1.
PROSITE: PS50278: PD6F_2: 1.
SEQUIENCE 214 AA; 25151 MW:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-07-2000 (TERMBLEEL 15, Created)
01-07-2000 (ITERMBLECL 15, List sequence update)
01-07-2001 (ITERMBLECL 17, List annotation update)
VASCULAR ENPOTHELIAL GROWTH FACTOR 188 PRECURSOR.
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InterPro: IPR000072; PDGF.
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01-JUN-2001 (TrEMBErel, 17, Last annotation update)
                                                                                         Probom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                            bearing dogs.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scheidegger P., Weiglhofer W., Smarez S., Kaser-Hotz B., Steiner R.,
Ballmer-Hofer K., Jaussi R.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukanyeti: Metudea; (Nordota; Craniata; Vertebrata, Estelesatsmi,
Mammalia: Putberia; (Arrolvera; Fiseipedia; Canidae; Canis,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia: Eutheria: Carnivora: Fissipedia: Canidae: Canis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota: Metazoa:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VEGE
PROSITE: PS00249; PDGF_1; 1. PPOSITE: PS50278; PDCF_2; 1.
                                                                                                                                                                                        Ptam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                     InterPro: IPR000072; PDGF
                                                                                                                                                                                                                                                                                       EMBL; AJ133758; CAB82426.1;
                                                                                                                                                                                                                                                                                                                                         Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                              "Vascular endothelial growth factor (VEGE) and its receptors in tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE: 20125516,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID-9615;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179 QOPQTCKCSCK-------NIDSRCKARQL-----ELNERICRC 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172 CMNISTNYISKTLEEITVPLSHGFKFVTVSFANHTSCKGMSKLDVYRQVHSIIRKSLPAT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            285 IDEFTOOTVOKGGVERISCGPHKELDEASCGCMCKNKLLPSSCGPNKEFDEEKCQC 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112 HYNAETIKSTIJTEMEN LUGMPKE VCVIJLIGKEFGALINTEF KPPCVSTY KCGGCCNSEGIJ 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O VETERENTEMETMETMETKER AUGHTGEMSET DESKOEDERBEKKTRARGEKKSVEGK---0-147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QTQCHVANKTCPKNHVWNNQICRCLAQIIDEGESSHLGDSDTSEGFHICGPNKE------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed-10561874
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25,0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 1.9e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  214 AA
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Best Local S
Matches 47
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Best Local Similarity 24.3%; Pred. No. 2.4e-11;
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2001 (TrEMBLRel. 17, Last annotation update)
VASCULAR FRUNTHELIAL GROWTH FACTOR-D (FRAGMENT).
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01-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-LUNG;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               112 HYNAETLESTOLEWEKTQGMPREVCYDLGREEGATINTEERPROVSTYROGGCONSECLQ 171
                                                                                                                                                                                          187 ITVPLSHGPKPVTVSFANHTSCRCMSKLDVYRQVHSIIRRSLP-ATOTOCHVANKTCDKN 245
                                                                                                                                                                                                                           y Match 8.3%; Score 196; DB 6; Length 122; Eccal Similarity 27.2%; Prod. No. 2.2e-11; Eccal Similarity 27. Mismatches 45; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       292 CVCESGVRY--USCSPHEE------ILDEASOFCMCKNKILLESSCGPNK-EFDEEKOQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172 CMNISTNYISKILFELIVPLSHGPKPVIVSFANHISCROMSKILDVYRQVHSIIRRSLPAT 231
                                      306 H-KELDRASOQOMOKNKLLPSSOGPNKEFDEEKOQOVOKKTOPKHHPLNPAKO 357
                                                                                                                  246 HVWNNGTOROLAGHURGEVSHEGUSDESEGEHTOGENKELLEFELOGOVOKGGVRUISOGE BOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93 C--VPIEEFNITMQIMRIKPHOSQHIGEMSFLQHSKCECRPKKDRARQEKKSIRGK---- 146
  84 HLQEL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59 MIWDSNKCKCVLQEE---
                                                                                                                                                     1 ISVPLISVPELVPVKVANHIGGKGFFIAF--KHFFSLIKKSIQIFEEDRGSHSKKLCPVD 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---KYRYKOWYVIOGECYEKRKHILTVQDE-Q IOKOSOKN---IDSROKARQLEEINERTORO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58; Conservative 29; Mismatches
                                                                                                                                                                                                                                                                                                                                 122 AA; 13820 MW; CC504B00E29D54EB CRC64;
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27 214 V
214 AA; 25175 MW;
                                                                                                                                                                                                                                                                                                                                                    122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cotartiodactyla; Ruminantia; Perera; Boveidea;
----ALCGQHMKFDEDKCECVCKTPCPRDLIGHTENC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VASCULAR ENDOTHELIAL GROWTH FACTOR THE: 0AC980A158C44B27 CRC64;
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                                                                             ----NPLAGMEDHT-----
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                                                                                                                                                                                                                                   54.
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Post-processing: Minimum Match 0%
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
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I: /SIDSR/urgdata/genoseq/quroseqf/AA1980_DAT-*

2: /SIDSR/urgdata/genoseq/quroseqf/AA1980_DAT-*

3: /SIDSR/urgdata/quroseqf/quroseqf/AA1982_DAT-*

3: /SIDSR/urgdata/quroseqf/quroseqf/AA1982_DAT-*

4: /SIDSR/urgdata/procseq-quroseqf/AA1982_DAT-*

5: /SIDSR/urgdata/procseq-quroseqf/AA1982_DAT-*

6: /SIDSR/urgdata/procseq-quroseqf/AA1982_DAT-*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /STDS8/decidata/geneseq/geneseqp/AA1988_DAT:*
/STDS8/decidata/geneseq/geneseqp/AA1989_FAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75.1138/doubata/genesod/genesegp/AA1984_DAT:*
75.1138/goubata/geneseg/genesegp/AA1985_DAT:*
75.1138/goubata/geneseg/genesegp/AA1986_DAT:*
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* TAS TOUGAN, diseases by Everyonic EVE.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	800016	Match Length DB	Length			Description
_	2354	100.0	418	<u>-</u>	AAW00934	Quail Flt4 receptor
7	2354	100.0	418	<u>~</u>	AAW75743	Quail vascular end
.	1804.5	76.7	419		AAW17847	Human
	1804.5	76.7	419	~	AAWUU'932	Human Fit4 recepto
J	1804.5	76.7	419	<u>-</u>	AAW75740	Human
<i>5</i>	1804.5	74.7	419	20	AAW86203	Human
7	1804.5	76.7	419	21	AAB10648	Human VEGC protein
α	1804.5	76.7	419	21	AAB29048	Human VEGF-C prote
ď	1804.5	76.7	419	t.	AAY70749	_
10	1804.5	76.7	419	21	AAY70982	
	1804.5	76.7	419	2	AAH 37605	

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:	557.5	, s. 1	677	677	677	677	677	677	677	677	677	677	Éjn	1343	1370	1991	1417	1453	1599	1604	1604	1604	1604	1742.5	1747.5	1759.5	1741.5	1793.5	744.	794.	1794.5	1794.5	1795.5
٠. بر	138.4	. ; x: 1	э х		8	28.8	8	28.8	ж	13 10 14	28.8	œ		57.1		:n :0 :-	60.2	61.7	67.9	F 12	68.1	68.1	€€.1	74.0	74.2	74.7	76.1	<u></u>	76.2	5	76.2	76.2	76.3
بر 8	137	, i	25.4	3 5 4	354	354	354	354	354	3.5 24	354	<u>ن</u> ورغ ور	ر رع دو	292	297	302	307	318	350	27.7	350	350	350	415	415	399	419	419	419	419	419	419	419
	13	• ;	 	t3 t3	12	21	21	21	19	1 '4	1 9	ta ta	19	E C	ю (3)	120	N O	Ö	16	13	F3	120	ы Э	 æ	Į,	: :0	1 æ	19	22	21	es C	20	Ŧ
AAWF 1242	AAY08286	AARTOY AF	AAF37606	AAY97573	AAY70983	AAY70750	AAB29049	AAB10649	AAW44293	AAW5 324 I	AAW4 9036	AAY97572	AAW57240	AAW86225	AAW86224	AAW86223	AAW86222	AAY08284	AAR82686	AAY47577	AAY97145	AAY22321	AAY30519	AAW00933	AAW75742	AAW86237	AAW11478	AAW75751	AAY97570	AAY97144	AAY22320	AAY30518	AAW13H34
X 7 547 11 7 147 2	Human growth facto	Hyran vascular and	Hounday VECE-D. Hom	Human VEGF-D1 prot	Human vascular end	Human prepro-vascu	Human VEGF-D prote	Human VEGD protein	Human väscular end	Homo sapiets vaseu	Human zveqt2 growt	Human VEGF-b prote	Homo supiems vascu	Human VECE-0 trunc	Haman VECF of trubo	Human VEGF-C trunc	Human VEGF C trunc	Human growth facto	Vascular endotheli	Haman VPSF-2 prote	Truncated vascular	Truncated human VE	A truncated vascul	Mouse Flt4 recepto	Mouse vascular end	Human VEGF-C tull	Human vascular end	Vascular endotheli	Human VEGF:B prote	Vascular endotheli	Full length human	Vascular endotheli	Human vascular end

AL IGNMENTS

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RESULT
                                                                            28-JUN-1996;
01-AUG-1995;
12-JAN-1996;
14-FEB-1996;
                                                                                                                                                                                                          VPGE 7. Fit4, recriter tyrosite kinase, VBSPP-3; quail; cascular endothelial growth factor receptor-3; ligand; dagle-geneals; wound healing; lymph vessel; therapy; diagnosis.
                                                                                                                                                                                          Coturnix coturnix.
                                                                                                                                                                                                                                                    quali Elt4 receptor tyrosine kinase ligand VBGF C.
                                                                                                                                                                                                                                                                       10-NeV 1997 (11rst +0*15)
        N-PSDB; AAT84300.
                  WPI; 1997 145688/13.
                                     Alitalo K. Joukov V;
                                                        (UYHE-) UNIV BELSINKI LICENSING LTD OY.
                                                                                                                               01-AUG-1996;
                                                                                                                                                   13-FEB-1997
                                                                                                                                                                       WU9705250-A2
                                                                                                                                                                                                                                                                                             AAWIII) 434;
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                                                                             96US-0601132.
                                                                                      9508-0510133.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           deduced from a cDNA clone (AAT84.00) obtained from a quail cDNA
library, and shows a high degree of homology to novel, claimed
homen VEGF C (see AAW00932) and mouse (see AAW00933) VEGF-C.
Recombinant quail VEGF C polypeptides can be produced that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    that binds specifically to the ELLA receptor tyrosine kinase (VESEK 3), stimulating phosphorylation of the receptor, and which modulates the growth of endothelial cells. The sequence was
02 FEB 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ell4 receptor tyrosine kinase ligand and related nucleic acid - used to modulate growth of endothelial cells and for diagnosis of
                                 BEEL DOV 90
                                                                    MODRESUL/ VI
                                                                                                                                       lymphatic endothetial cell; myelopoiesis; angioqeneses; inflammation;
lymphatericeceesia; sedema; elephantianis; Milroy's discuse.
                                                                                                                                                                                                            <u>ouail vasaular andotholial growth lactor C protein.</u>
                                                                                                                                                                                                                                             14 DBC 1998 (Tirst entry)
                                                                                                                                                                                                                                                                                                                      AAW75743 standard; Protein; 418 AA
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                                                                                                      Cofurnix sp.
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 98W+ 0S01973
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of inflammation, oedoma, elephantiasis, or Milroy's disease. They can also be used to modulate myclopolesis to treating aranaborytopenia. They can also be used for modulating the growth of endothelial cells. They can also be used to stimulate tymphoryte production and maturation, and to promote or inhibit trafficking of legeocytes between tissues and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     increasing vascular permeability, and affecting myelopoids is. The products can be used for stimulating angiogeneses, for inhibiting
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lymphatic vessels or to affect migration in and out of the thymus
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461 CIESPNKCELKGKREHHQITGSCYRPPCTVRTKRCDAGELLAEEVCRCVRTSWKRELMN 418
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                                                                                                                                                                             vasculodenesis and angiogenesis. Angiogenesis inhibition or increased vascularisation may be clinically desirable (e.g. to suppress solid tumour growth or in wound healing, respectively). The IIK-lip can be administered to treat conditions with defective or insufficient tik-l Polypepides may also act as carriers to deliver diamostic/thorapautic apparts to ceils to which fill-by binds, to generate antibabilities, and to identify fir-lip antiposists
                                                                                                                                                                                                                                                                                                                                                                                                            DNA encoding a human foetal liver kinase I binding protein - used to treat conditions with insufficient protein, deriver agents to cells and identity antagonists to treat protein-mediated conditions
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bestal liver Kinase I binding protein; human; IIk-lbp; coceptor tyrosine Kinase; gasmitebaseks; angiogenesis
                                                                                                                                                                                                                                                                                                     The mature fikl-bp can be secreted from host cells transformed with an expression vector including an isolated fik-libp cDNA clone (see AA168811). Fik-libp can be used to isolate cells to which it binds,
                                                                                                                                                                                                                                                                                                                                        This polypoptide comprises a human factal liver kinase I binding protein (IIk-lbp) (see AAWITR37) that binds to the receptor tyrosine kinase (I'k-l expressed on vascular egecthelial and other cells.
                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 30-32; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide
                                                                                                                                                                                                                                                                                            for use in studying the roles of such cells and of flk-l in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IMMV) IMMUNEX CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-NOV-1995;
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120 STOTEWART, MERRYCVII I KARDALINIA KAPOVSIYROOGOONSEGLOOMNISTNY 179
                                                                                                                             y Match 76.7%; Score 1804.5; DB 18; Length 419; Local Similarity 75.7%; Pred. No. 1.9e-142;
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                                                                                          1 MHILLEMI.SIGGCLANGAVILIGPRQ-PPVANAYESGHGYYEEEPGAGEPKAHASKDILEEQI 59
                    mbliqtisvaestlauallpypreapaaaaatesgidisdaepdageatayaskdieeqi 60
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                                                                                                                                                                                                 treating tlk-lbp mediated conditions.
                                                                                                                   Conservative
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/note= "(Claim 10)"
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vascular endothelial growth factor receptor-3; liquid;
utilizatesis, wound boaling, lymph.cosel, lymphangioma;
cancer; metastasis; therapy; diagnosis; antibody; inhibitor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Flt4 receptor tyrosine kinase ligand VEGF-C.
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                                                                              /mote= "preferred active fragment of VEGF-C
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    Prepro_peptide

"preterred active fragment of VEGE-C, retaining Flt4 ligand activity (Claim
                                                                                                                                                                                                                                            "protorred active fragment of VEGF-0, rotaining Fit4 ligand activity (Claim 10)"
                                                                                                                                                             "preferred active fragment of VEGF-C, retaining Flt4 ligand activity (Claim 11)"
                                                                                                                                                                                                                                                                                                                         retaining Flt4 ligand activity (Claim 14)
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Best Local :
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Monuse and quail VEGF C sequences (see AAW00944-45) have also been
AAW/5740 standard; Protein: 419 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               library. The polypeptide, or its active transments, can be expressed in transformed or transferted host cells for use in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a novel ligand that binds specifically to human Elt4 receptor tyrosine kinase (VEGER-3), stimulating phosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This polypeptide comprises the pre-pro sequence of human VEGE-C
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14 FEB 1996;
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                                                                                                                                                                                                                                                   Its sequence was deduced from a cDNA clone (AAT84276)
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181 lsktlt-itaplsgapkpytistanktseremskldvyrgyhsiirrstpatlpgegaan 180 ISKTLEETTVPLSH0PKPVTVSFANHTSCECMSKLFVYFQVHSTTERSLFATQTQCHVAN

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120 STELEWKKIQGMPKEVCVDLGKEFGALINIEFKPY*VSIYRGGG***(NSEGIQC'MNISINY 179

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Best Local Similarity 75.7%; Pred. No. 1.9e-142;
Matches 418; Conservative 49; Mismatches 60;
                                                                                                                                                                                                                                                                                                                                                                           The vascular endothelial growth factor C (VEGF-C) polypeptides have activities affecting growth and migration of vascular endothelial cells, promoting growth of lymphatic endothelial cells and lymphatic vessels, increasing vascular permeability, and affecting myelopoiesis. The products can be used for stimulating anglogeneses, for inhibiting anglogenesis, to stimulating lymphanglogenesis, treatment or prevention of inflammation, oedema, elephantiasis, or Milroy's disease. They can
                                                                                                                                                                                                                                                                                also be used to modulate myelopolesis, e.g. treating granulocytopenia. They can also be used for modulating the growth of endothelial cells. They can also be used to stimulate lymphocyte production and maturation and to promote or inhibit trafficking of leucocytes between tissues and lymphatic cessels of to affect adaption in and out of the thymus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Flt4: vascular endothelial growth factor C: vascular endothelial cell; lymphatic endothelial cell: myelopoiosis; andiogenoses; inflammation; lymphangiogenesis; ocdema; elephantiasis; Milroy's disease.
                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 112-115; 177pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated vascular endothelial growth factor polypeptide(s) used to develop products for treating, e.g. cancers, inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-FEB-1997;
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                                                                                                           1 MHLLEMLSLGCCLAAGAVLLGFRQ-FPVAAAYESGHGYYEEEFGAGEPKAHASKDLEEGL 59
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                   , granulocytopenia or for wound healing or tissue
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                                                                                                                                                                                   Query Match 76.7%; Score 1804.5; DB 20; Length 419; Best Local Similarity 75.7%; Pred. No. 1.9e 142; Matches 318; Conservative 44; Mismitches 50; Endels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gone therapy overers. Page in vice and in vitre adjaganic activity and are used to gimulate antiopenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia, to stimulate endothedial cell growth and migration in vitre; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia, stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This represents the amino acid sequence of human vascular endothelial growth factor (VEGF)-C protein. The invention provides tripograped VEP (VEGF-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic
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This invention describes a corel vascular endothetial growth factor X (VEGF-X) protein (Ia) and its encoding polynuchedide (IIa) which has vulcerary, cytostatic, antirheumatic, antiarthritic, antipsoriate an antidiabetic activity and acts as an angiogenesis and vascularization

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18-MAR-1999;
08-NOV-1999;
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                                                                         Disclosure; Fig 11; 127pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human VEGC protein
                                                                                                         such as cancer, rheumatoid arthritis, psoriasis and wounds
                                                                                                                         preventing diseases associated with inappropriate andiogenesis
                                                                                                                                        New vascular endothelial growth factor protein, useful for treating or
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An antisense molecule of the invention is useful for treating or proventing career, the unatoid arthritis, psoriasis and diabetic not inepathy by inhibiting and openic activity of imappropriate vascularization including formation and proliferation of new blood
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vas diar eskib kisi growth tarbir reciptor 3, VEETS
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75.7%; Pred. No. 1.9e-142;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 76.7%; Score 1804.5; DE 21; Length 419; Best Local Similarity 75.7%; Pred. No. 1.9e-142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              methods of the invention, which involve the screening of individuals to determine which vascular endothelial growth factor receptor 3 (VEGER-3, also known as FIE4 or fms like typesine kinese 4) alloes they possess and thms their likelihood of developing hereditary lymphoedema conditions associated with lymphoedema include Milroy-Norme syndrome, which is early onset lymphoedema and lymphoedema pracedox, which is late
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is the protein sequence for the human vascular endothelial growth factor {\cal C} (VEGF-C). It was used to demonstrate the
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(UYHE) UNIV HELSINKI LICENSING LTD OY.
(UYPI) UNIV PITTSBURGH.
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                                                                                                                                                                                                                                                                                                                                                                                        STOLEWKKLOGMERE, VEVOLGKEF GAFTNIFF KFREVSIYRE GOPENSEGLOCKNISINY 179
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and sarrowns. F114 receptor tyrosine kinase binding compounds can be used for manutarturing medicament useful for diagnostic screening, imaging and treatment of malignancies characterised by F114 expressing blood cells. The F114 quene maps to chramcsomal ragion 545 and is expressed as 5.8 kb and 4.5 kb mkNAs which differ in their 3' sequences and are differentially expressed in HEL and DAMI cell lines. F114 because to a subfamily of class III receptor tyrosine kinases (RTKs). It is used as a target for tumour imaging and anti-tumour therapy. The present sequence is a human prepro vascular endothelial growth factor C (VEGF-C), a specific example of F114 binding compound.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; receptor tyrosine kinase; RTK; Flt4; fms-like tyrosine kinase 4; VEGFR-1; vascular endothelial growth factor receptor-3; chromosome 5q35; cytostatio tumeri imaging; anti-tumeri thorap; treatment; diagnosis; neoplastic disease; lymphoma; carcinoma; breast; squamous cell; melanoma; sarcama; malianancy; VEGF-C; vascular endothelial growth factor C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ligand to FIt4 thereby inhibiting Flt4 mediated proliferation of vascular endothelial cells. The compound is useful for treating meroplastic disease such as breast carcinomas, squamous cell carcinomas, lymphomas, melanomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The patent discloses a method to treat reoplastic disease characterised by expression of the tiposine library 1 (Fil4) toccutar (also referred as vascular endothelial growth factor receptor-3, VECEP-3) in endothelial cells of blood vessels adjacent to malignant meoplasm. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Treating neoplastic diseases such as lymphoma, carcinomas, melanomas
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Home sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 15-17; Page 140-142; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  involves administering a compound that inhibits binding of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       comas, involves administering a compound capable of inhibiting of ligand proteins to fms-like tyrosine kinase-4 receptor -
419 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kaipainen A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WU-US23525
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            reminiscent of a Balbian fring 4 protein (BR3P) sequence; cleavage of signal pertide and the 3 tenhina; peptide produces a partially processed from of VEGF-C of about 24 km which has high affinity to Fitt (VEGF-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lubel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Signal peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The "Nicks and situalites VENT Clearly rs. C.s. position 156 is essential for VENTR-2 binding and at 5 is essential for VENTR-2 and VENTR-3 binding"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "important for VESE C activity"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mature_VEGE-C
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"Essential for VEGFR-2 binding"

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Best Local Similarity
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                                                            Binding-site
                                                                                                                                                                                                                                                      Binding-site
                                                                                                                                                                                                                                                                                                                                                  Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vascular endothelial growth factor-C; VEGF; human; re-endothelialisation; vascular endothelial growth factor receptor; VEGFR; vascular trauma; blood vessel; cardiovascular surgery; anti restenosis agent; prevention;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human vascular endothelial growth factor (VEGF)-C protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    restenosis; stenosis, percutaneous transluminal coronary angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY70982 standard; Protein; 419 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CECTESCAECHIEGEREHHQUCSCYRPPCTVRTKRCDAGFLLAEEVCRCVRTSWERPLMN 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEEST THEFT FAST C MATERIALS SO RESTRES VAN TER THE STANDARD STORE THE STANDARD STAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eldewiktspreprovoidwikeligvaluitlikppevssyroppeensoidprinitstsy
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                                                                                                                                                                                                                                                   /label- Mature_human_VEGF_C
/note> "Processed vascular epithelial growth factor:C"
83
                                                                                                                                                                                                                                                                                                                                                  VEGE-C protein (21-23 kD)*
                                                         /note- "Essential for VEGFR-2 and VEGFR-3 binding" 156\,
                                                                                                                                                                                          /note- "Essential for VEGFK-2 and VEGFR-3 binding" 131..211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein (29 kD)"
32..103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note- "Cleavage results in partially-processed VEGF-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualitiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76.7%;
75.7%;
                                                                                                                                                 "Essential for biological activity of protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                             Amino_terminal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (49) Mismatches
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present union acid sequence is the complete buman propre vascular endeficial growth factor (VER) (C. VER) has the ability to stimulate re-endeficialisation of an injured blood vessel, without significant stimulation of smooth muscle cell proliferation. It can bind to and stimulate, VEEFR 2 (vascular endeficial growth factor receptor) and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           used in a method to reduce or prevent restenosis and stenosis of evessel following vascular transace..., cardiovascular surgery and percutaneous transluminal coronary angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VESER Cohosphorylation in cells that express such receptors. An anti-restenosis agent comprising either a VESE-C gene or protein is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Popt ide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Presenting stemosis and restemosis in mammals using vascular endothelial growth factor proteins of the nucleic acids encoding them
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sagmenter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claum 5; Page 51 54; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yla herttuala S. Alitalo K. Hiltonen Mo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S VIVILIABIL VIA (ZHVIA)
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                  (5) (E) LESPIKCELKOKREHEGICS YEDEROTVELKRCDAGELLALEEVOROVERSWKRDLMI 418
                                                                                                                                      60 centerpoked lik (kikitih) todan pettingkia opata/juorantapa/wkipqas
                                                                                                                                                                         240 KT) FKNHVWNNQ F ROLAQHDEGESSHLGDSDESECEH I FGPNKELDEET OO VOKOGV
                                                                                                                                                                                                         181 lskilteityplsqqpkpytistanhtseremskldvyrqyhsiirislpatlpqeqaan
                                                                                                                                                                                                                                                                             121 sidnowrkt gampe overidealke tyr it nit tik ppervsvyraagaanseg ligamit st sy
                                                                                                                                                                                                                                                                                                                 120 SIDTEWRKTQGMEREVIVOLGKEFBATTNTFEKPPOVSTYBOGGCONSEGLQGMNLSTNY 179
                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     I MILLEMESIGOCLAAGAVILITPRO PPVAAAYESGHGYYEEEPGAGEPKAHASKIJEEGI. 59
                                                                     rpaseqphkeldrnseqeveknkltpsqeqanretdenteqevekrteprnqplnpqkea
                                                                                     2000 450584/40
                                                                                                                                                                                                                                                                                                 AADOULTT, AADOULTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                419 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       980S 0105587
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label=Carboxy_terminal_peptide
/note="Cleavage results in partially-processed VEGE-C
protein (29 kb)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228..419
                                                                                                                                                                                                                                                                                                                                                                                                                                       76.7%; Score 1804.5; DB 21; Denote 75.7%; Prod. No. 1.9e 142; Hidels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Essential for VEGER 2 and VEGER-4 binding"
                                                                                                                                                                                                                                                                                                 Jeltsch MM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21; Length 419;
                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>-</u>
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Ξ Ş Ξ Ş

Matches 318; Conservative Best Local Similarity

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AAB 37605
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                                                                                                                                                                                  mutation aftering the encoded amino acid sequence or expression of at
least I VEGER-3 allele in the nucleic acid correlates with an increased
risk of accelering a lymphatic disorder. Treatment for hereditary
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Screening a human for an increased risk of developing lymphatic disorder comprises assaying nucleic acid for alterations in the sequences expressing vascular endothelial growth factor receptor-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYPI-) UNIV PITISBURGH.
(UYHE-) UNIV HELSINKI LICENSING LID OY.
(LHDW ) LHDWIG INST CANCER RES.
                                                                          Sequence
                                                                                                           tactor b VESE D genes (via gene therapy) and proteins. The present sequence is the protein sequence for VESE-C.
                                                                                                                                               lymphedoema can be provided through the administration of vascular endothelial growth factor \gamma (VEGF-C) and vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Pages 62-63; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA2284470-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human: gene therapy; lymphatic disorder; hereditary lymphedoema; FN14; vascular endothelial growth factor receptor 3; VEGFR-3; VEGF-0; VEGF b;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB37605 standard; Protein; 419 AA
                                                                                                                                                                                                                                             disorder from presence or absence of the mutation. The presence of
                                                                                                                                                                                                                                                            (VEGFR 3)/fms like tyrosine kinase 4 (Plt4) allele (see AAC68952 and AAB47504) and determining an increased risk of developing lymphatic
                                                                                                                                                                                                                                                                                                  sequence or expression of vascular
                                                                                                                                                                                                                                                                                                                 subject to determine a presence or an absence of a mutation altering the
                                                                                                                                                                                                                                                                                                                                       lymphodoema.
                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a method tor screening a human subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Σ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26 MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29 SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26 SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tms-like tyrosine kinase 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB 37605;
                                                                                                                                                                                                                                                                                                                                 an increased risk of developing a lymphatic disorder e.g. hereditary
Bedoema. The method comprises assaying nucleic acid of a buman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-007762/02.
0B: AAC68953.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ferrell RE,
                                                                            419 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9908-0375248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99CA-2283470
76.7%; Score 1804.5; DB 22; Length 419; 75.7%; Pred. No. 1.9e-142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Finegold DN, Karkkainen M;
                                                                                                                                                                                                                                                                                                endothelial growth tactor receptor 3
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    A human vascular endothelial growth factor (VEGF)-related protein (VRP) (AAWI (833) has been identified that binds to, and stimulates the phosphorylation of, the receptor tyrosine kinase F1(4. It is
postulated to be a third member of the VEGF protein family. Its amino acid sequence was deduced from a cDNA clone (AAT59/29) obtd
                                                                                          Claim 6; Fig 1A-D; 68pp; English.
                                                                                                                           sarcoma etc.
                                                                                                                                        fluman protein similar to vascular endothelial growth factor -
to treat e.g. wounds, tumours, rhemmatoid arthritis, Kapesi's
                                                                                                                                                                                         N-PSEH; AAT59529.
                                                                                                                                                                                                                                                                                                  08-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               therapy; diagnosis; anglogenesis; monoclonal antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                receptor protein tyrosine kinase; Flt4; signal transduction; would healing; vulserary, rheumated arthritis Kaposi's sareoma:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial growth factor-releated protein; Vep.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human vascular code the liab growth tactor related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05 JUN-1937 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW13833 standard; Protein; 419 AA
                                                                                                                                                                                                        WPI: 1997-192902/17.
                                                                                                                                                                                                                                                                                                                                                               14-MAR-1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                   (GETH ) GENERIFECH INC
                                                                                                                                                                                                                                                                                                                                 30 - AUG - 1996 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{1}{\alpha}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350 cectospykellkakkthhateseyrrpetniakaeepyfsyseeverevpsywkipams 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CECTESPNKCFLKCKRFHHQTCSCYRPPCTVRTKRCDAGFLLAEEVCRCVRTSWKRPLMN 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RETENDING THE CHARGE HE THE CLOSE THREE CLUB TO THE CHARGE HER CHARGE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KICEKNHAMNNOTOBOLYÖHDEGESSHIGDSDISEGEH-TOGDNKEIDELLGGAAGAGA 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISKTIFEITVPLSHGPEPV.vSFAMHIS-DEUMSHLEVVEGVHSIIRRSLFATGTGCHVAN 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sideowrkigomprovoidayketjaltalfikpeassytojas as jlymaalsisy 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wood W;
                                                                                                                                                                                                                                                                                                  9508-0003491
                                                                                                                                                                                                                                                                                                                                 96W0-US14075.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Mat_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= Siq_peptide
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\begin{array}{c} \mathbf{X} \\ \mathbf{Y} \\ \mathbf{X} \\ \mathbf{
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY30518
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 raise monoclonal antibodies used to treat conditions associated with excessive between larisation or vascular formeability. VRI may make it possible to avoid coronary by-pass surgery by stimulating growth of the collateral circulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    leakecyte adhesion deficiency syndrome: lymphopenia;
phagecyte Eactoricidal dystunction; severe combined [mmunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              angiogenesis; blood pressure, blood flow; immune system disorder; immune cell; cancer; autoimmune disorder; blood protein disorder;
                                                                                                                                                                                        W09946364-A1
                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              allergy; asthma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wiskott-Aldrich disorder; anemia; thrombocytopenia; hemoglobinuria:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Digeorge syndrome: HIV intection: HTLV-BLV intection:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ataxia telandiectasia; common variable immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vascular endothelial cell growth; endothelial cell migration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human vascular endothelial growth factor-2; VEGF-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular endothelial growth factor-2 (VEGF-2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120 SIMEWEKIQOMPKEVOVOLOKEFOALINIFFKPOOVSIYKOOOCONSEGLQOMNISTNY 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 rsvssvdolminljillillillistillillillillisting og norganins rtootiktaaahtnioilk 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ipascophkeldriscopovckinklipsopojanieldentoopovckitopiiigplippikoa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          =
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein disorders, ataxia telangiectasia, common variable immunodeficiency, Digeorge syndrome, HIV infection, HTLV-BLV infection, lenkocyte adhesion deficiency syndrome, lymphopenia, phagacyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         deficiencies or disorders may be genetic, somatic, such as cancer or some autoimmune disorders, acquired (e.g. by elemetherapy or toxins), or intectious. Examples of immunologic deliciency syndromes include blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wiskott Aldrich disorder, anemia, thromboeytopenia, or hemoglobinuria. They can also be used to modulate emostatic or thrombolytic activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activating or inhibiting the proliferation, differentiation, or mobilization (chemotaxis) of immune cells. The etiology of these immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       medical condition. The VEGE-2 polypoptides or polynocteotides may be useful in treating deficiencies of disorders of the immune system, by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       blood pressure, and increase blood flow. The polynucleotides and polypeptides can be used for preventing, treating or amellocating a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF 2 polypeptides stimulate the growth of vascular endothelial cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents vascular endothelial growth factor-2 (VEGF 2). The VEGF-Z polypeptides have activities similar to VEGF. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 12; Fig 1A-E; 222pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human vascular endothedial growth factor-2, used for treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         allergic asthma) or other respiratory problems, may also be treated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarly altergic reactions and conditions such as asthma (particularly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bactericidal dystunction, severe combined immunodeficiency (SCIDs),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            stimulate endothelial cell migration, stimulate angiogenesis, decrease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immune disorders and cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA ) HUMAN CENOME SOT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - MAR
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                          240 KEPTRAHIYWANG PETROLOGI BERGESHIZIBSDISBOEH I PODPAKELIBELIGEVER KOV
                                                                                                                                                                                                                                                                                                     ## 18k0 floitypisepypkjviistankiseremskidvyrejvksiirrsipatippjegaan
                                                                                                                                                                                                     241 kteptnymwnnhierelagedfmtssdagd dstdgthdiegpnkeldeetegeveragl 299
                                                                                                                                                                                                                                                                                                                                                           180 ISKTLEETTVPLSHOPKEVIVSEANHESEROMSKLDVVROVHSTIRRSLPATQTQCHVAN 239
                                                                                                                                                                                                                                                                                                                                                                                                           121 sidnewikhqempreveidvyketyvatnilikppevsvyreggeenseglgemnistsy 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                           120 STIGLEWER 10 MERCEN (VIOLINEE CALL NEE EMPONS I VEROCECCINSECL, OCHNISTINY 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 rsvssodetmtvlypeywkmykeqlikqgwqhareqanlasiteetiktaaabgateilk 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l mhslqffsvacsllaaallpqpreapaadaafesgldlsdaepdageatayaskdleeql 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1999 551359/46
centespakellkakkibbajiesayanpetarakarepatsyseeverrepsywarpams 419
                                                                                                apaseaphkoldraseapvokakli psapaanrotdont edpvokrtapraaplapakea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RSVSSVDFLMTVLYPEYWKMFKOOLRKGGWQHNREHSSSDTRSDDSLKFAAAHYNAETLK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                        $16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12090SB 0M66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76.2%; Score 1794.5; DR 20; Length 419; 75.2%; Pred. No. 1.3e-141; alive 40; Mismatches 61; Indels 4;
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                                                                                                                                                                                                                                                                                                                                                                                                               Matches 316; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the invention. The isolated polypeptide is useful for stimulating anglogenesis, by promoting the proliferation of endothelial cells, to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence is the vascular endothelial growth factor 2 (VEGE2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Fig 1; 49pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor 2 for wound healing and vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAX84847
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5932540-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY22320 standard; Protein; 419 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the treatment of a wound, or for the treatment of tissue or bone damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HUMA:) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24 (1921) 1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 - DEC - 1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endothelial cell proliferation; tissue damage; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF2; vascular endothelial growth factor 2; angiogenesis; bone damage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Full length human VEGF2 protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22 - SEP - 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY22320;
                  299 RPTSCOPHKELDRASOCOMOKNKLLPSSOTONKEFDEEKOQUVOKKTONKHHELNEAKOT 358
                                                  241 ktcptnymwnnhierelagedimissdagd-dsidgihdiegpnkeldeeregeveragi 299
                                                                                      240 KTOPKNHVMNQTOPOLAQHDFOFSSHLODSDTSFOFH TOGDNKFLDFETOGOVCKGGV
                                                                                                                       181 lsktlteitvplsqqpkpvtistanhtscrcmskldvyrqvhsiirrslpatlpqcqaan
                                                                                                                                                           180 ISKILE ELIVILSHGEKEVIVSEANHISE KEMSKIDVYKQVHSI I KRSLEATOTOCHVAN
                                                                                                                                                                                                                              120 STETEWEKTOGMPREVOVILGKEFGATTNTFFKPPOVSTYROGGOONSEGLOOMNISTNY 179
                                                                                                                                                                                                                                                                  61 rsvssyde(mtv);peywkmykeylikaawajnirejan(hsrteetiktaaahynteilk 120
                                                                                                                                                                                                                                                                                                      60 KSVSSVDELMIVLYPEYWKMFKOQLKKGGWQHNKEHSSSDIKSDDSLKFAAABYNAEDLK 119
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                                                                                                                                                                                                                                                                                                                                                                         1 MHILLEMISLGCCLAAGAVILIGPRQ-PPVAAAYESGHGYYELEEGAGEERAHASKULEEQI. 59
                                                                                                                                                                                               sidnewrktgempreveidegkelgeathtlikppevsvyreggeensegligemitstsy
                                                                                                                                                                                                                                                                                                                                         mhslyttsvacsliaaallpypreapaaaaatesyldlsdaepdageatayaskdleegl 60
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1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                               76.2%; Score 1794.5; D8-20; Length 419; 75.2%; Pred. No. 1.3e-141;
                                                                                                                                                                                                                                                                                                                                                                                                             40; Mismatches
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Best Local s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Administrative of viscolin endethelial growth factor 2 (VESF 2) to a patient can be used for treating injury or degeneration of photoreceptors associated with e.g. angloid streaks, retinitis pigmentosa, age-related macular degeneration, diabetic retinopathy, etc. VESF-2 promotes anglogenesis, the formation of new blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 31; Fig la-e: 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treating injury or degeneration of photoreceptors comprises administering to a subject vascular endothelial growth factor 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W0200045835-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vascular endothelial growth tactor 2 (VEGE-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vessels in the retina.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAA52080.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 u7-FEB-2000; 2000Wo-US04047
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-DFC-2000 (tirst entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY97144 standard; Protein; 419 AA.
                                                                       120 SIDEMPKOLOGENOCESSAYISAGGARALAVGASA, DANASAGMOLOGENSTICK 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300 tpasogphkeldrnsogovokukltpsychanieidentogovokrtopriejplippakoa 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359 CECLESPNKTELKGKFFHEGIGS CYRFFTIVRIKRCDAGFILAEEVCRCVRTSWKRPIMN 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                     / Match 76.2%; Score 1794.5; DB 21; Length 419; Local Similarity 75.2%; Pred. No. 1.4e-141;
                                                                                                                                                                                                                   60
MHILLEMI.SIJOCI.AAGAVI.I.GPRO-PPVAAAYESGHGYYEEEEPGAGEPKAHASKDLEEGI. 59
                                                                                                                                           rsvssvdelmtvlypeywkmykeqlrkggwqhnreqanlmsrteetikfaaahynteilk 120
                                                                                                                                                                                                               RSVSSVDELMTVLYPEYWKMEKCQLRKGGWQHNREHSSSDTRSDDSLKFAAAHYNAEILK 119
                                                                                                                                                                                                                                                                                mhslyffsvacslluaallpypreapaaaaafesyldisdaepdayeatayaskdleegl 60
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Pred No is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	o Query Match Length DH	MU	41	Description
	2017 5	H7 9	420	*	79XX10	038890 dom talands
2	1762.5	75.5	418	<u></u>	057352	057352 coturnix co
•	696	24.8	354	4	043915	043915 homo sapien
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s.	231	9.9	232	4	Q9H1W9	Q9h1w9 homo sapien
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19	E O	9.7	, 4	_	Caronio Forting Forting	Ciberra Xenopus lac

Object that the port	11 090XG6	146	7.3	169.5	4.5
Q9qw40 rattus sp.,	11 090M30	2471	7.3	170	44
(9)kx7 rattus borv	11 C9JKX7	170	7.4	171.5	<u>ئ</u> س
Q9h240 homo sapien	4 Q9H240	2471	7.4	172	42
Q04721 homo supien	4 004721	0471	7.4	172	41
Q9mzbl ovis aries	6 Q9M2B1	118	· 1	173.5	40
Q9vb78 drosophila	5 Q9VB78	800	7.5	176	99
Q9bdp7 macaca mula	6 Q9EDP7	126	. J	176	38
061240 halocynthia	5 061240	2352	7.6	176.5	37
ÿ9xs48 bos taurus	6 Q9XS48	188	7.7	179.5	36
042571 xenopus lae	13 042571	148	7.7	179.5	ند) Ch
Q9vwp6 drosophila	5 Q9VWP6	301	7.7	180	34
09qk60 callithrix	6 Q9GK00	124	7.7	180	ندا ندا
054881 rattus norv	11 054881	150	7.8	181.5	32
Q9er16 mesocricetu	11 Q9ERL6	142	7.9	184	31
Q9uh58 homo sapien	4 Q9UH58	147	7.9	184.5	30
O9hlw8 homo sapien	4 Q9H1W8	171	8.0	187.5	29
o74567 trichoderma	3 074567	704	8.1	188.5	28
Q9b1x1 drosophila	5 09BLX1	314	œ 1	188.5	27
073682 brachydanio	13 073682	188	œ 	188.5	26
Q99psl mesocricetu	11 644b81	190	œ .⊳	190.5	25
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077648 ovis aries	6 077643	190	8.6	199.5	20

ALIGNMENTS

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PRELIMINARY: PFT: 420 AA. 98850; 1-NOV-1999 (IrEMBLTel. 12, Greated) 1-NOV-1999 (IrEMBLTel. 17, Last sequence update) 1-JUN-2001 (IrEMBLTel. 17, Last annotation update) ASPHIAF ENDOTHELLAL GROWTH FATTOR OF PROTURSOR. OST TARTUS (ROVING). WAATYOLA: Metazoa; Chordata; Craniata; Vertebrata; Eutel annalia; Eutheria: Cetartiodactyla; Ruminantia; Pecora; Ovidae; Bovinae; Hos. CBL_TaxID=9913; I] ISUE-HEART; IN X., Yonekora H., Yamagishi S., Yamamoto Y., Yamamoto Structure and expression of hovine VEGF family."; UNINTERSORUMAY: FANAT7687.1; Table: AH004275; BAA77687.1; Table: PF00441; PDGF; 1. MART; SM00141; PDGF; 1. LONAL: PSE0278; PDGF_2; 1.		MBL: AH004278 ISSP: P15692: INTERPRO: IPE INTERPRO: IPE INTERPRO: F12015 INART: SM0014 WART: SM0014 WART: P5002 INGNAL: P550.	
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PRELIMINARY: PPT: 420 AA. 9X850; 9X850; 1-NOV-1999 (IrEMBLrel. 12, Created) 1-NOV-1999 (IrEMBLrel. 12, Last sequence update) 1-NOV-1999 (IrEMBLrel. 17, Last annotation update) ASCHLAF ENGLIELLAL, GROWTH FACTOR OF PROTUSCIP. OS TAUTUS (Bovine). OS TAUTUS (Bovine). Cotartiodactyla; Ruminantia; Pecora; OVIdae, Bovinae, Bos. CBL_TaxID=9913; 1] CUENCE FROM N.A.		'ISSUE-HEART;	
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9XS50; PRELIMINARY: PPT: 420 AA. 9XS50; PYS50; 1-NOV-1999 (IrEMBLrel. 12, Created) 1-NOV-1999 (IrEMBLrel. 12, Last sequence update) 1-2NOV-2001 (FEMBLrel. 17, Last annotation update) ASTHLAF END-GHELIAL SPOWIH FATTOP OF PROTURSOP. OS TAUTUS (BOVING). UMARYOLA: Metazoa; Chordata; Craniata; Vertebrata; Eutel ummaila; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Ovidae; Bovinae; Bos. CBL_TaxID=9913;		_	
9XS50; PRELIMINARY: PPT: 420 AA. 9XS50; 1-NOV-1999 (IrEMBLrel. 12, Created) 1-NOV-1999 (IrEMBLrel. 12, Last sequence update) 1-NOV-1999 (IrEMBLrel. 17, Last annotation update) ASCHLAF ENDOLHELLAL GROWTH FACTOR OF PROTUSOP. OS taurus (Hovine). OS taurus (Hovine). OS taurus (Hovine). Schordata, Craniata, Vertebrata; Eutel annolia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Ovidae, Bovinae, Bos.	913;	ICBI_TaxID=991	
PRELIMINARY: PPT: 420 AA. 9X550; 9X550; 1-NOV-1999 (IrEMBLrel. 12, Created) 1-NOV-1999 (IrEMBLrel. 12, Last sequence update) 1-JUN-2001 (IrEMBLrel. 17, Last annotation update) ASPHIAF ENDOTHELIAL GROWTH FAMTOR O PROTHESOP. OS taurus (Bovine). Ukaryota: Metazoa: Chordata: Craniata: Vertebrata: Eutel ukaryota: Metazoa: Cetartiodactyla: Ruminantia: Pecora;	inae, Bos.	lovidae, Bovin	
Q9X850 PRELIMINARY: PPT: 420 AA. Q9X850; PRELIMINARY: PPT: 420 AA. Q9X850; Ol-NOV-1999 (IrEMBLEEL 12, Last sequence update) Q1-NOV-1999 (IrEMBLEEL 12, Last sequence update) Q1-JUN-2001 (!rEMBLEEL 17, Last annotation update) VASTULAF ENLOCHBUIAL SPOWIH FACTOR O PRECUESOR. Bos tarrus (Bovine). Eukaryuta: Metazua: Churdata; Craniata; Vertebrata; Euteleon	theria; Cetartiodactyla; Ruminantia; Pec	fammalia; Euth	
9XS50 PRELIMINAPY; 9XS50; 1-NOV-1999 (IrEMBLEGL 12, 1-NOV-1999 (IrEMBLEGL 12, 1-JUN-2001 (TREMBLEGL 17, ASSTUAF ENU-THELLAL GF-WITH OS LAUFUS (BOVIDE).	rtazoa; Chordata; Craniata; Vertebrata;	lukary∪ta; Met	
9X550 PRELIMINAPY: 9X550; 1-NOV-1999 (ITEMBLE) 12, 1-NOV-1999 (ITEMBLE) 17, 1-JUN-2001 (TEMBLE) 17, ASCULAR ENWITHITAL SPOWIH	Bovine).	os taurus (Bo	
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https://opench.llos/243-752(1998).
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Ptam; PF00341; PDSE; 1;
PKINIS; PR00438; GPCYSKNOT;
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Alitalo K., Le Bouarin N.M.:
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Eukaryota: Metazoa: Chordaia: Craniata: Vertebrata: Euteleostomi;
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                                                                                                                                                            SEQUENCE.
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InterPro: IPR000476; dlyco_hormone.
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HSSP: P15692; TVPP.
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                                                                                     y Match 75.5%; Score [752.5; Ds.13; Length 418; Local Similarity 74.5%; Prod. No. 1.5e-159;
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                                   1 MHILL YELSILACSI I AAALI PSPREAPATVAAFESOLGESEAEPIXGEVKAFEGKOLEEQI 60
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                                                                      414; Conservative
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04 3915;
01 -JUN - 1998
                                                                                  EMHI.;
                                                                                                                                                                                      "Vascular endothelial growth factor b (VEGF-b) is a ligand for the tyrosine kinases VEGF receptor 2 (FIkl) and VEGF receptor 3 (FIkl).": Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
                                                                                                                                                                                                                                                                                                                                       Yamada Y., Nezu J., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
VEGF-D.";
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBL_TaxID-9606;
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01-JUN-2001 (Trembl
GROWTH FACTOR FIGE.
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Achen M.G., Jeltsch M., Kukk E.,
Alitalo K., Stacker S.A.;
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Rocceliqiani M., Lestingi M., Luddi A., Orlandini M., Franco B.
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                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                              Y12864; CAA7471.1;
Y12865; CAA7371.1; JOLNED.
Y12865; CAA7371.1; JOLNED.
Y12867; CAA7371.1; JOLNED.
Y12868; CAA7371.1; JOLNED.
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                D89630; BAA24264.1; -.
AJUUU185; CAA03942.1;
Y12863; CAA73370.1; -.
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Best Local Similarity
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P97946;
                                                                                      Yamada Y., Nezu J., Shimano M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
VEHF-D.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ordandini M., Marconcini I., Forrezzi R., Oliviero S.:
"Identification of a c-fos-induced gene that is related to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=97040254; PubMed-8876195; Ordandini M., Marcondini I., Form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Monse)
Enkaryota: Metazoa: (
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01-MAY-1997 (TERMBLECL 0), Last sequence update)
01-JUN-2001 (TERMBLECL 1), Last annotation update)
VASCULAR PRIVATERILAT GREWITH FACTOR D (C FOS INDUCID SECWIH FACTOR)
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Genomics 42:483-488(1997)
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Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae: Mus
                                                                                                                                                                                                                             MEDITINE=42346118; DubMed:4552155
                                                                                                                                                                                                                                                                                   TISSUE LUNG:
                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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Best Local :
                                             NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-SPRAGUE-DAWLEY: TISSUESLUNG: Mandriota S.J., Pepper M.S.; Submitted (***N 1997) to the FMBL/Senkank/TMBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
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PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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                                                                                                                                    PROSITE: PS50278; PDGF_2; 1
                                                                                                                                                                                                                                                                                        Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                      InterPro: IPR000072; PDGF.
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Matches 123; Query Match
Best Local Similarity

Conservative

2. Mismatches Score 689; DB 11: Pred. No. 5.8e-58;

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29.5%; 97.6%;

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Best Local Similarity (9.1%) Prod. No. 1.40-54;
Matches (17) Conservative (3) Mismatches (8)
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MEDGINE 97.849118; PubMed 9295122;
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PROBLEE PSO0278: PDGF 2: 1.
SEQUENCE $25 AA: $7112 MW;
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01 JUN 2001 (TEEMBLIE), 11, hast annotation updat
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29 CSCFECKESLESCCOKHKMFHPDTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46 EQQTRAASTLEELIQVAHSEDWKLWRCKLALKSLANVDSKSTSHRSTRFAATFYDTETIK TU<sup>6</sup>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57 EEQLESVSSVIET MSVLYPDERMKMYKSOLI KRODWOOTTENI KIGIGSVKEAAAHYNTEITIK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ISKULFEITVILSQCPRPVTISFANHTSCRCMSKLDVYRQVHSJIRRSLPATLP --- QCQ 233
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                                                            = = = :
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Chronomus thummi (Midge).
Chronomus thummi (Midge).
Enkaryota: Metazoa: Arthropoda: Trachesta: Hexapoda: Insecta:
Enkaryota: Metazoa: Arthropoda: Trachesta: Hexapoda: Insecta:
Plerydota: Meoptera: Endoplerydota: Diptera: Numatocera:
Plerydota: Meoptera: Endoplerydota: Diptera: Chironomidae: Chironomida
                                       Enkaryota; Metazoa; Arthropoda; Tracheata, Hexapoda, Insecta;
Pteryqota; Neoptera; Endopteryqota; Diptera; Nematocera;
Chironomoidea; Chironomidae; Chironominae; Chironomus.
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                                                                                                                                                                                                                SP185. Chironomus pallidivittatus (Midge).
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01-FEB-1997 (TrEMBLIGE, 02, Created)
01-FEB-1997 (TrEMBLIGE, 02, Last sequence update)
01-JUN-2001 (TrEMBLIGE, 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   094448
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PROSITE: PS01186: EGF_2: UNKNOWN_1.
SEQUENCE 1704 AA: 185745 MW; 3A3F20247CBF1E28 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases. EMBL: U54641: AAA99804.1; .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-FEB-1997 (TrEMBLIGEL 02, Created)
01-FEB-1997 (TrEMBLIGEL 02, Last sequence update)
01-JUN-2001 (TrEMBLIGEL 17, Last annotation update)
NCBI_TaxID 7151;
                                                                                                                                                                                                                                                                                                                           185 KDA SILK PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1303 ECTPGKATPASCGDKKSWNPDSCSCQCKSKMPGGGCTPSNQQWNCETCKCECS-GTQTC-1-1360
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InterPro: 1PR000853; Mtllthion_nemat.
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Local Similarity 25.4%; Pred. No. 3.6e-17;
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Best Local Similarity
Matches 91; Conserv
                                                                                                               Submitted (GFC-2000) to the FMRL/GenRank/DDBJ databases EMRL, ALI36131; CAC19512 1; InterPro: IPR000072; PDGF: Pram: PF004A1; PDGF: 1 Probom: PD001625; PDGF: 1 SMART SM00141; PDGF: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001 (TFEMBLECL, 16, Created)
01-MAR-2001 (TFEMBLECL, 16, Last Sequence update)
01-JMR-2001 (TFEMBLECL, 17, Last annotation update)
DJ26102+6-3 (VASCULAR ENDOTHELIAL GROWTH FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1335 OWNERTOFOFOSAKOWODAGOTWNSQTOQOSODASGTOTGAQVWOSKAGKOVODDAQKKOD 1394
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Case S.L., Cox C., Bell W.C., Hoffman R.T., Martin J., Hamilton R.,
Submitted (APP-1765) to the TNRC/APP-08-08-1-defined set defects
EMBL: U54640: AAA59803.1; -.
Interpro: [PRODOM56] : PSF like
Interpro: [PRODOM56] : PSIF like
Interpro: [PRODOM56] : MINEMATODE.
PROSITE: PS00249; PD0F_1; 1. 
PROSITE: PS00278; PGMF_2; 1 
SEQUENCE 232 AA: 27042 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota: Metazoa: Chordata: Cianiata: Vortebrata: Eutoleostemi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1348 SPKTWIPSSCSC---OCDENNADDESCANDEDDATCSEKCANDE 1438
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                                                                                                                                                                                                                                                                                                                                                                                Williams S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROMSKI DVYPDVHSI I PRSLPATLPDODAANKTOPTNYVWNNYMOROLAQQDFI PYSNVE 265
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illarity 22.1%; Fred. No. 8.5e 16;
Conservative 42; Mismatches 126; Indels 148; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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    FB49F364446F4D01 CRC64;
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RESULT 10
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                                                                                                                                                                                                                   Matches 63:
                                                                                                                                                                                                                                       Query Match
Best Local :
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EMBL; S85192; AAC63102.1; -.
EMBL; S85224; AAC63101.1; -.
EMBL; S85199; AAC63101.1; JOINED.
EMBL; S85201; AAC63101.1; JOINED.
EMBL; S85219; AAC63101.1; JOINED.
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01-NOV-1998 (TEMBLIEL 08, Last sequence update)
01-UN 2001 (TEMBLIEL 17, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of RNA."
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                                                                                                                                                                                                                                                                                                                            SECUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; S85222; AAC63101.1; JOINED. HSSF, F15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Houck K.A., Ferrara N., Winer J., Cachianes G., Li B., Leung D.W.; "The vascular endothelial growth factor family: identification of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=92168017; PubMed=1791831;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-9606;
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                                                                                                                                                                      113 EILKSIDNEWRKTQCMPREVCIDVGKEFGAATNTEFKPPCVSVYRCUGCCNSEGLOCMNT 172
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233 QAANKTOPTNYVWNNYM-CHOLAQQDFIFYSNVEDDSTNGFHDVOGPNKELDEDTOQOVO 291
                                        120 SESNIIMQIMEIKE--HQGQHIGEMSELQHNKCEGEFEKEGEARQEKKSVEGK----GKG 172
                                                                                    173 STGYLSKTLEEITVPLSQGPKPVTISEANHTSCPCMSKLDVYPQVBS11FKSLPATLDQC 232
                                                                                                                                                                                                                                     y Match 9.9%; Score 231; DB 4; Local Similarity 26.8%; Pred. No. 5.3e-14;
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                                                                                                                               61 EVVKFMD-VYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGGCCNDEGLECVPT 119
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                                                                                                                                                                                                                                                                                                                                                                                                                                    PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                            254 AA; 29461 MW; 069DFE9E9723DBA8 CRC64;
                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                 30; Mismatches
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                                                                                                                                                                                                                   86; indels 56;
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                                                                                                              EXSULT: 1.
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01 NOV 1999 (ITEMBLIE), 12, Created)
01 NOV 1999 (ITEMBLIE), 12, Last sequ
01 JUN 2001 (TEMBLIE), 17, Last anno
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01 of 2000 (FERMRITEL IS, Cast sequence update)
01 JEN 2001 (FERMRITEL IS, Last sequence update)
VASCULAR ENDOTHELIAL GROWTH FACTOR 188 PRECURSOR.
                                                          ©9XSF4.
                                                                           ⊕9XSF4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biol. Chem. 380:1449-1454(1999).
EMBL. AJ1-8758, CAB8Z4Z6.1,
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PROSTIE: PS00249; PDDF 1: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Probom; PD001629; PB4F; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bearing dogs."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scheidenger F., Weiglhoter W., Suarez S., Kaser-Hotz B., Steiner R.,
Ballmer Hoter K., Jaussi R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-20125516; PubMed-10661874;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Esteleostomi;
                                                                                                                                                                  199 OLEMERTORO 209
                                                                                                                                                                                                                                       16,6
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                                                                                                                                                                                                    328 K EFDENTOGO 337
                                                                                                                                                                                                                                                                     271 GEHOVOGENKELDEDTOGOVOKOGLKESSSGERKEL - DRUSOGOVOKNKLETNSCGAN 327
                                                                                                                                                                                                                                                                                                            169 CMNTSTCYLSKTLFEITVPL -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match
bocal Similarity 25.5%; Pred. No. 2.8e-13;
hes 64; Conservative 26; Mismatches 64; Indels 97; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYNTETEKSTONEWRKTOMMPREVCTOVGKEFGAATNTFEKPPCVSVYRCGGCCNSEGIO 168
                                                                                                                                                                                                                                    45,44ftu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214 AA; 25175 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                           PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                           RST PATTIFE COANKTOPTNY VWNW WORDT AGO DET FYSINVEDESTIN 270
                                                                                                                                                                                                                                                                                                                                                                            ENTIMOTMRIKEROGOBIGEMSELQHSKCECKEKKERAKOEKKSIRG 145
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     last annotation update)
                      Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                               -SQGPKPVTISFANHTSCRCMSKLDVYRQVHSIIR- 222
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                                                                           PRT;
                                                                                                                                                                                                                                    REKHLEVQDEQTOKOSOKNI
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Matches 63; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                01-AUG-1998 (TrEMBLIEL 107, Created)
01-MAY-1999 (TREMBLIEL 10, Last sequence update)
01-JUN-2001 (TrEMBLIEL 17, Last annotation update)
VEGF18 PROTEIN PRECURSOR (VASCULAR ENDOTHELIAL GROWTH FACTOR 183)
(DJ261623.6.6) (VASCULAR ENDOTHELIAL GROWTH FACTOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART: SM00141: PDGF; 1.
FROSITE: FS00249; FDGF_1; 1.
PROSITE: PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jingjind L., Roque R.S.;
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases
EMBL: AF13249; AAD29683.1;
                                                                  Jingjing L., Roque R.S.;
                                                                                                                                    "Identification and characterization of a new splicing variant of vascular endothelial growth factor: VEGF184."; Biochim. Biophys. Acta, Gene Struct. Expr. 1443:400-406(1998).
                                                                                                                                                                                                                                                                                              Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Primates: Catarrhini: Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Canis tamiliaris (Doq).
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostemi:
Williams S.;
                  SEQUENCE FROM N.A
                                                 Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases
                                                                                    TISSUE RETINA;
                                                                                                    SEQUENCE OF 114-209 FROM N.A.
                                                                                                                                                                                                             MEDLINE-99096474; PubMed 9878851;
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                               NCHI_Tax1D: 9606;
                                                                                                                                                                                                                                                                                                                                   Homo sapieus (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            060720.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia; Batheria; Carnivora; Pissipedia; Canidde; Canis
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                                                                                                                                                                                                                               TISSUE KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                284 LUTOGOVORGGERRSSSIGFHKEL - DRESSOCVORNKEFPNSFGANK EFBENTOGF 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   145 KGKG---UKKKKKKKKKP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224 SLPATLFOCQAANKTOPTNYVWNNYMOKOLAOODETFYSNVEDDSTNGFHDVOGPNKELL- 28 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169 (MNISTGYLSKILFEITVPD-----SQÖPKPVTISFANHTSCROMSKILDVYRQVHSIIRR 22)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 HYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGAAFNTFFKPPCVSVYRCGGCCNSEGLQ 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93 (VPTEE+----FNITMOIMRIKPHOGOHIGEMSFLOHSKOEGKEKKEKKEKAKQEKKKSVKO-145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34 HKRHEVVKEMI-VYQESYCKPTETLVIJTEQEYPIJETETTEKPSCYPIMROJJOSINJEGLE 92
                                                                                                                                                                                           .. Jiang A., Pei D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nilarity 26.5%; Pred. No. 3.4e-13; Conservative 27; Mismatches 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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26.5%; Pred. No. 3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            209 AA
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Matches 60; Conserv
                                                                                                                   Query Match
Best Local Similarity
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01-NoV-1999 (TrEMBLrel. 12, Created)
01-NoV-1999 (TrEMBLrel. 12, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (DEC-2000) to the EMMI/AP-0F-06/07001 databases
EMMI: AJ010448; CAA09179.1; -.
EMMI: AF062645; AAC16740.1; -.
EMMI: ALI36141; CAC19514.1; -.
HSSP: P15694; 2VPF.
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                                                                                                                                                                                                                                                                                                                                               InterPro: [PR000072: PDGF. Fram; PF00341; PDGF; ]. Probom; PD001629; PDGF; ].
                                                                                                                                                                                                                                                                                                                                                                                                                                     Time line L., Rogue R.S.;
Submitted (MAE Yers) to the EMRL/WedRank/DERT databases
EMRL AF13 4250, AAN29584.1:
HSSP, P15692, 2VPE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Carpiwora: Fissipedia: Canidae: Canis.
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                                                                                                                                                                                                                                    SMART: SM00141; PDGF; 1. recustiff; psu0249; PDGF_1; 1. recustiff; psu0249; PDGF_2; 1. segurence 214 AA 25151 MW.
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                              HYNTELLKSTIMEWRKT......MIMEMERQTINVGKERGAAINIFFKPPCVSVYRCGGCCNSEGLQ 168
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                                                                                           62; Conservative
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                                                                                  9.3%; Score 217.5; DB 6
25.6%; Pred. No. 8.3e-13;
vative 26; Mismatches 75
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26.2%; Pred. No. 8.1e-13;
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VEGE183 PROTEIN.
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Q9XSF3
1D C9XSF3
1D C9XSF3
1D C9XSF3
1CT C1 WVV
DT 01-WOV
DT 11-WASCOL
SA VEGE
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        Query Match
        9.2%;
        Score 214.5;
        DB 6;
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        Best Local Similarity
        24.8%;
        Prod. No. 1.4c-12;
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        59;
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SMART: SM00141; PDGF; 1.
PROSITE: PS00249; PDGF_1; 1.
PROSITE: PS50278; PDGF_2; 1.
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01-NOV-1999 (TERMELTEL 12, List Sequence update)
21-JUN 2001 (TERMELTEL 17, List Endetation affate)
VASCULAR ENDOTHELIAL GROWTH FACTOR 164.
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Mammalia: Eutheria; Carnivora; Fissipedia; Canidae; Canis.
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Job time: 191 sec

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2333
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

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EMBL; 973620; AAC52984.1; EMBL; 958112; AAH46707.1; BISSP; P15692; IVPF. MED: MGI:109124; Veqic. InterPro: IPB092409; OF_Tyskipt. InterPro: IPB092409; OF_Tyskipt. InterPro: IPB09272; PDGF. PIAM; PF00434; PDGF; 1. PRINTS; PR00438; SPCYSKAOT. FroDom: PD00438; SPCYSKAOT. FroDom: PD004267; PDGF; 1.	ht. It is produced that the state of the sta	TUTDET N.S., WOOD C.K.; "Characterization of murine FIt4 ligand/VEGF-C."; Obcodene 15:613-618(1997)1- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS. AND ENDOTHELIAL CELL GROWTH: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY)1- SUBJULATIY, BELONGS TO THE FOOD/VERF PARTLY OF GROWTH FACTORS.	STRAIN-BALB/C; STRAIN-BALB/C; STRAIN-BALB/C; MIDLINE 9738849; PubMod 9247316; Pitz L J. Morris L C., Towler P., Long A., Burgoss P., Greco K., Wang J., Gassaway K., Nickbard E., Kovacic S., Ciarletta A., Glannotti J., Finnerty H., Zellner P., Beier D.P., Leak L.V.,	SEQUENCE FROM N.A. STRAIN-HALB/C; STRAIN-HALB/C; MEDILINE-97164697; PubMed-9012504; Kukk E. Lynhoussaki A. Taili S. Kaipainen A., Jeltsch M., Kukk E. Lynhoussaki A. Taili S. Kaipainen A., Jeltsch M., Joukov V., Alitalo K.; "VEGF-C receptor binding and pattern of expression with VEGFR-3 suggests a role in lymphatic vascular development."; bevolupment 122.3829 3837(1996).	VEGEC. VEGEC. Whose inseculus (Mouse). Eukaryota; Metazoa; Chordata; Craniata; Vertebrara; Euteleostomi; Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus. MCBI_TaxID-10090;	RESULT 1 ID VEGC_MOUSE STANDARD; PRT; 415 AA. ID VEGC_MOUSE STANDARD; PRT; 415 AA. AC P97953; DI 15-JUL-1998 (Rel. 36, Created) DT 15-JUL-1998 (Rel. 36, Last sequence update) DT 29-AUG-2001 (Bel. 40, Last annotation update) DE VASCULAR ENDWITHFILAL GROWTH FACTOR C PRECURSOR (VEGF-C) (FLT4 LIGAND) DE VASCULAR ENDWITHFILAL GROWTH FACTOR C PRECURSOR (VEGF-C) (FLT4 LIGAND)

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OI 08T 1996 (Rel. 44, Last sequence update)
20 ADE 2001 (Rel. 40, Last annotation update)
VARBULAR ENDOTHELIAL GROWTH FACTOR of PREFURSOR (VESF-C) (VASCULAR
ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN) (VRF) (FLT4 LIGAND) (FLT4
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                   Bomo saprens (Human)
Eukaryota: Metazoa:
                                                                                                  Joukse V., Prinsela K., Kaipaiden A.,
Saksela o., Kaikkinen N., Alitais K.,
                                                                                                                                                                              SEQUENCE FROM N.A., AND SEQUENCE OF 103-120 MEDILINE 96178224; PubMed 8617204;
                                                                                                                                                                                                                                                                                            Nebel Tax He Seore
                                                                                                                                                                                                                                                                                                                                                                                                                                                   APP THAT
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                   the FITA (VERFER) and FER (VERFE2) receptor tyroside kinases.";
                                                               "A novel viscular endothelial growth factor, VEGE-C, is a ligand for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSTED
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Pred. No. 5.8e-179;
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                                                                                                                                      Chiler D., Labtimen I.,
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Omery Match 87.8%: Score 2048: DB-1: Best Local Similarity 85.4%; Pred. No. 3.2e-156;
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Filz L. Morris J.C., Towler P.S., Long A.J., Greco R.,
Filz L. Morris J.C., Clarletta A., Hennessey D., Kovacic S.,
Filzgerald M., Scaltreto H., Weich N., Neben S., Finnerty H.,
Filzgerald M., Scaltreto H., Weich N., Neben S., Finnerty H.,
Filzgerald M., Scaltreto H., Weich N., Neben S., Finnerty H.,
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Live J., Gray A., Yuan J., Luobi S.-M., Avraham H., Wood W.L.;
"Vascular endothelial growth factor-related protein: a ligand and
specific activator of the tyrosine kinase receptor Fit4.";
Proc. Natl. Acad. Sci. U.S.A. 93:1988-1992(1996).
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Joukev V., Pajusela K., Kaipainen A., Chilov D., Lubtinen J.,
Saksela O., Kaikkinen N., Alitalo K.;
EMBO J. 15:1751-1751(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Problem; PD001629; PDGF; 1.
SMAKI; SM00141; PDGF; 1.
PROSITE: PS00249; PDGF_1; 1.
PROSITE: PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send an email to license dish-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and to
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                                                                                                                  SECUENCE
                                                                                                                                                                                                                                                                                                                                                                         CHAIN
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InterPro: IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUN-1996) to the EMBL/GenBank/Libkl databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wood C.K.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X94216; CAA63907.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Growth factor; Glycoprotein; Signal; Repeat.
                                                                                                                     414 AA;
                                                                                                                                             205
240
                                                                                                                                             102
419
265
298
322
346
175
175
240
                                                                                                                     4688 * MW;
                                                                                                                                          4 (PARTIAL).
N LINKED (GLONAC. . . .
N LINKED (GLONAC. . . .
N LINKED (GLONAC. . . .
                                                                                                                                                                                                                                                                                                                                                                      VASCULAR ENDOTHELIAL GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                 X 24 AA TANDEM REPEATS
                                                                                                                  9E598719168 (E014F) CRC64;
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                                                                                                                                          (POTENTIAL).
(POTENTIAL).
                              Length 419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kukk E.,
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BAR3_CHITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Paulsson G., Lendahl H., Galli J., Ericsson C., Wieslander I.,
"The Balbiani ring 3 gene in Chironomus Lentans has a diverged
repetitive structure split by many intrems.";

J. Mol. Biol. 211:331-349(1990).

-i- FUNCTION: USED BY THE LARVAF TO CONSTRUCT A SHPRAMOLECULAP
-STRUCTURE, THE LARVAL TUBE. HALHANI RING PROTEIN 3 COULD PLAY A
KOLE AS A TRANSFORT PROTEIN THAT BINDS TO OTHER PROTEINS
INTRACELULARLY AND IN THE GLAND LUMBEN IN OFFER TO PREVENT THESE
                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for common
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-001-1994 (Ref. 27, Created)
01-001-1993 (Ref. 27, Last sequence update)
01-001-1994 (Ref. 30, Last annotation update)
                                                                                                                                                                                                                                                                                                                                             entities requires a license agreement (See http://www.isb-sib-ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE Salivary gland; MEDLINE:90172404; PubMed:1689777;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Arthropoda; Trachoata; Hexapoda; Insecta;
Pterydota; Neoptera: Endopterydota: Diptera: Nomatorora:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BARS_CHITE
   SECURINCE
                                CHAIN
                                                                                                      Repeat; Siqual.
                                                                                                                                   PRINTS; PR00876; MTNEMATODE
                                                                                                                                                                                                             HSSP; P18055; 2MKB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics, and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=7153;
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                                                                                                                                                                        InterPro;
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44-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN: HAS 82 APPROXIMATE REPEATS OF CYS-X-CYS-X-CYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HISSUE SPECIFICITY: SALIVARY GLAND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: SECRETED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FROM FORMING WATER-INSOLUBLE FIBERS TOO EARLY.
                                                                                                                                                                                                                                      x52263; CAA36506.1;
se8167; se8167.
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       1700 AA
                                                                                                                                                                 IPR000853; Mt.11thion_nemat.
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                                    1700
   186145 MW.
BALHIANI RING PROTEIN 3.
WW: 34202B2852IBOB15 CPC64;
                                                                 POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-APR-1990 (Rel. 14, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHFITAL GROWTH FACTOR PRECURSOR (VEGE) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1715 FILENSOS DE DESEMBER
protein forms are encoded through alternative exon splicing.";
                    Tischer E., Mitchell R., Hartman T., Silva M., Gospodarowicz D., Fiddes J.C., Abraham J.A.;
"The human gene for vascular endothelial growth factor. Multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequ
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                                                                                  SEQUENCE FROM N.A. MEDITINF=91268072+ PubMed=1711045;
                                                                                                                                                     Science 246:1309-1312(1989).
                                                                                                                                                                            PDGF.
                                                                                                                                                                                                                   Connolly D.T.;
                                                                                                                                                                                                                                     Keck P.J., Hauser S.D., Krivi G., Sanzo K., Warren T., Feder J.,
                                                                                                                                                                                                                                                              MEDLINE-90069609;
                                                                                                                                                                                                                                                                                   SECUTIVATE FROM N A
                                                                                                                                                                                                                                                                                                                               science 246:1306-1309(1989)
                                                                                                                                                                                                                                                                                                                                                      mitogen."
                                                                                                                                                                                                                                                                                                                                                                    "Vascular endothelial growth factor is a secreted angiogenic
                                                                                                                                                                                                                                                                                                                                                                                             MEDIINE-90069608; PubMed-2479986; Feand D.W., Cachianes G., Kuand P
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PERMEABILITY FACTOR) (VPF).
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                                                                                                                                                                                            "Vascular permeability factor, an endothelial cell mitogen related
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                                                                                                                                                                                                                                                            PubMed-2479987;
                                                                                                                                                                                                                                                                                 AND PARTIAL SEQUENCE
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Fairbrother W.J., Champe M.A., Christinger H.W., Keyt B.A., Starovasnik M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "IH, 19%, and 15N backbone assignment and secondary structure of the receptor binding domain of vascular endothelial growth factor.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mapping of the kinase domain receptor binding site."; Proc. Natl. Acad. Sci. U.S.A. 94:7192:7197(1997).
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"AIDS associated Kaposi's sacromer relis in oulture express vascular
endothelial growth factor.";
                                                                                                                                                                                                                                                                                                    Structure 6:637:648(1998).
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EC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE 98298440; PubMed 9634701;
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Fairbrother W.J., Keenan C.J., Meng G., de Vos A.M.;
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                                                                                                      SIMILAKITY)
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                                                           ALTERNALIVE PRODUCTS: FOUR FORMS OF VEGE ARE PRODUCED BY
                               ALTERNATIVE SPITCING OF THE SAME GENE (VECF-12), VECF-165
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233 QAANKTTPTNYVWNNYMCRCLAQQDTTFYSNVEDDSTNGFHDVCGFNKELDEDTCQCVCK 192
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                      98 EESNIIMQIMKIKE--HOGOHIGEMSELQHNKEEEKKEKKEKKEVK-----
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F1VGH; 08-APK-98;
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20-AUG-2001 (Rel. 40, Last annotation update)
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Biophys. Acta 1260:235-238(1995)
-i- FUNCTION. GEOWER ENCYCLE ON ANNIONENESIS. AND ENDOTHER
-i- FUNCTION. GEOWER ENCYCLE ON ONLY ON AND VASCULAR
PERMEARULLITY (BY SIMILARITY).
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Sharma H.S., Tand Z.H., Gho B.C.H., Verdonw P.D.;
"Nucleotide sequence and expression of the porcine vascular
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38 EVVKEMD-VYORSYCRPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGGCCNDEGLECVPT 96
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190 93 127 129 76

BY SIMILARITY.
BY SIMILARITY.

INTERCHAIN (BY SIMILARITY).

VASCULAR ENDOTHELIAL GROWTH FACTOR

CHAIN

Mitogen; Growth factor; Glycoprotein; Signal.

PROSITE; PS00249; PDGF_1: 1. PROSITE; PS50278; PDGF_2: 1.

DISULFID

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VEGF_RAT
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01-AUG-1990 (Rel. 15, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGF) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEGF_RAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Cidildid, Vricesides; Murinae; Kattus.
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Kattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               148 ------RRKHLFVODPQTCKCSCKNT- DSRCKARQLELNERTCRC 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   288 QCVCKGGLRPSSCGPHKEL---DRDSCQCVCKNKLFPNSCGANR-EFDENTCQC 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     that is homologous to platelet.derived growth factor.";
Ploc. Natl. Acad. Sci. U.S.A. R7:2628-2633(1990).
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGLOGENESIS, AND ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Coun G., Bayme M.L., Soderman D.D., Palisi T.M., Hope D.A., Thomas K.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND SECURNCE OF 27-190. MEDIINE 90207244: Pubm-d-2320579;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCH1_1axID-10116;
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                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in mo way use by and this statement is not removed. Usage by and for commercial modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Amino acid and cDNA sequences of a vascular endothelial cell mitogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97 EE-----FHITMQIMRIKPH9GQHIGEMSFLQHNKCECKPKKDRARQ------- 138
                                                                                                                                                                                                                                                                                                         or send an email to license isb-sib.ch).
                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                SMART;
                                                                                                                                                                                ProDom; PD001629;
                                                                                                                                                                                                   Pfam; PF00341; PDGF;
                                                                                                                                                                                                                     interPro,
                                                                                                                                                                                                                                   HSSF; F15692;
                                                                                                                                                                                                                                                      PIR; A35987; A35987.
                                                                                                                                                                                                                                                                        EMBL; M32167; AAA41211.1; ~.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE SFECIFICITY: EXFRESSED IN THE PITUITARY, IN BRAIN, IN PARTICULARDY IN SUPRAGULIC AND FARAVERIRECULAR NUCLEI AND THE CHOROID PLEXUS. ALSO FOUND ABUNDANTLY IN THE CORPUS LUTEUM OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE OVARY AND IN KIDNEY GLOMEROLD
                                                                                                                                                                SM00141; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GROWIH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR
                                                                                                                                                                                                                         lfE000072; PDGF.
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DGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
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Ol ARE 1990 (Rel. 14, Freated)
Ol ARE 1990 (Rel. 14, Last sequence update)
Ol ARE 1990 (Rel. 40, Last annotation update)
VASSULAR ENECTHELIAL GROWTH FACTOR PRECURSOR (VEGE) (VASSULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SECUENCE
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This swiss paor entry is copyright. It is produced through a collaboration
                                                                                                                                                                                               "Fibritary tollicular cells secrete a novel heparin binding growth tactor specific for vascular endothelial cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDILINE 90059508; FubMed: 2479986;
Leung D.W., Cachianes C., Kuang W. J., Goeddel D.V., Ferrara N.;
"Vascular endothelial growth factor is a secreted angiogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   V 1: 1: 1:
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                                                                                                                                                                                                                                                                                                         Biochem. Biophys. Res. Commun. 165:1198:1206(1989)
                                                                                                                                                                                                                                                                                                                    "Vascular endothelial growth factor: a new member of derived growth factor gene family."
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                                                                                                                                                                                                                                      Fortata N., Henzel W.J.
                                                                                                                                                                                                                                                                          SEQUENCE OF ALCOHOL
                                                                                                                                                                                                                                                                                                                                                         Tischer E., Gospodarowicz D., Mitchell R., Silva M., Schilling J., Lau K., Crisp T., Fiddes J.C., Abraham J.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     III TOURS
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                          SIMILARITY).
                                                                                                                                                              chom. Biophys. Res. Commun. 161:851-858(1989).
FUNCTION: GROWTH FACTOR ACTIVE IN ANDIOGENESIS, AND ENDOTHELIAN
                                                                                         SHECELLHIAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
                                                                                                                            ALITHRVAMABA
                                                                                                                                             CELL GROWTH, INDUCES ENPOTHELIAL PROLIFERATION AND VASCULAR
                                                                          TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN
                                                                                                           SUBUNITE HOMEOIMER; DISULTIDE LINKED
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Prod. No. 2.7
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tabes 74;
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                                                                     Eukaryota, Metazoa;
Mammalia; Eutheria;
                                                                                                                                          01-AUG-1992 (Rel. 2), Created)
01-AUG-1992 (Rel. 2), Last sequence update)
20-AUG-1991 (Rel. 4), Last annotation update)
VASCULAK ENDOTHELIAL GROWTH FACTOR (VEGF) (VASCULAR PERMEABILITY
                                                                                                                                                                                                    VEGF_CAVPO
P26617;
                                                                                                                                                                                                                                  CAVEO
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   Submitted (XXX-1992) to the EMBL/GenBank/DDBJ databases
                                                                                                   Cavia porcellus (Guinea pig).
                                                                                                                   VEGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OLSUPAD
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or send an enail to licensegisb.sib.ch).
               Berse B.
                               SEQUENCE FROM N.A.
                                                       NCBI_TaxID 10141;
                                                                                                                            FACTOR) (VPF).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitogen; Growth factor; Glycoprotein; Alternative splicing; Signal
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                                                                                                                                                                                                                                                                                                                                                                           228 TEPOCOAANKICE ENYVWNNYMCKCLAOODE FYSNVEDDSTNGEHDVCGENKELDEEDC
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                                                                                                                                                                                                                   STANDARD;
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23.9%; Pred. No. 4.6e-09;
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                                                                      Chordata: Craniata: Vertebrata: Euteleostomi: Rodentia: Hystricognathi: Cavidae: Cavida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22310 MW;
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 Query Match
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PROSITE: PS50278: PDGF_2: 1.

Mitogen: Growth factor: Glycoprotein.
Mitogen: Growth factor: Glycoprotein.
DISULFID 56 101 BY SIMILAR
DISULFID 56 103 BY SIMILAR
DISULFID 50 103 INTERCHAIN
DISULFID 59 59 INTERCHAIN
DISULFID 59 59 INTERCHAIN
CARBOHYD 74 74 N-LINKED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                            01-APR-1993 (Rel. 25, Created)
01-00T-1996 (Rel. 34, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWIH FACTOR PRECURSOR (VEGF) (VASCULAR
                                                                                                                                                             VEGE
                                                                                                                                                                              MOUSE
                                                VEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    149 KPPOVSVYROGGCONSEGLOCMNTSTGYLSKTLFEITVPL----SQGPKPVTISFANHT 203
Enkaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
Mammalia: Entheria: Rodentia: Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                             QU0731;
                                  Mus musculus (Mouse)
                                                              FERMEABILITY FACTOR) (VPF).
                                                                                                                                                                                                                                                                                                                                       264 VELDSTINGEHDVOGENKELDEDTOGEVOKOM RESSMÆRHEL --- PEDSMOMVKINKLE 320
                                                                                                                                                                                                                                                                                                                                                                          100 KCECRPKKEKARQ------
                                                                                                                                                                                                                                                                                                                                                                                                     204 SCRCMSKLDVYROVHSTIRRSLPATLPQCQAANKTCPTNYVWNNYMCRCLAQQDETFYSN 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                            142 DSRCKARQLELNERTORC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85 GWQQPTLNTRTGDSVKFAAAHYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGAATNTFF 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS TO THE PDGE/VEGE FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS,
                                                                                                                                                                                                                                                                           321 PNSCGANR-EFDENTCQC 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CELL GROWTH, INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBURIT: HOMODIMER; DISULFIDE-LINKED SUBCELLULAR LOCATION: SECRETED BUT R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 GEQKPR-----EEVKEM-------DVYKRSYCRPIEMLVDIFGEYPDEIEYIF
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                                                                                                                                                                                                                                                                                                                                                                                                                                       KPSCVPLMPCCOUNTEST SCVPTEE-----FAITMQIMRIKPHQGQHIGEMSFLQHS 99
                                                                                                                                                           MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58;
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                                                                                                                                                                                                                                                                                                           ---ENPCGPCSE---
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INTERCHAIN (BY SIMILARITY)
N-LINKED (GLONAC) (POTI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9EB86A8ÍA9D5DCA4 CRC64;
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                                                                                                                                                                    214 AA
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ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.

PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.

Growth tactor;

Glycoprotein; Alternative splicing; Signal.

VASCULAR ENDOTHELIAL GROWTH FACTOR

BY SIMILARITY

Pfam; PF00341; PDGF; MGD; MGI:103178; Vegf

InterPro; HSSP;

1PR000072; PDGF

P15692;

2VGH.

DISULFID

27 82 85 76

93 127 129 76 85

INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY)

N-LINKED (GLCNAC. . .) (PROBABLE).

BY SIMILARITY BY SIMILARITY BY SIMILARITY.

DISULFID CHAIN SIGNA! Mitogen:

CARBOHYD DISULFID DISULFID

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Breier G., Albrecht U., Sterrer S., Risau W.; "Expression of vascular endothelial growth factor during embryonic angiogenesis and endothelial cell differentiation.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The mouse gene for vascular endotheilal growth factor. Genomic structure, definition of the transcriptional unit, and characterization of transcriptional and post transcriptional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=92355593; PubMed-1644816;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           regulatory sequences.";
J. Biol. Chem. 271:3877-3883(1996).
-i- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shima D.T., Kuroki M., Deutsch U., Ng Y., Adamis A.P., D'Amore P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=96216498; PubMed-8632007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LONGEST FORM (VEGF-3, SHOWN HERE) CONTAINS A BASIC INSERT LINKED TO CELL-ASSOCIATION/HEPARIN-BINDING.

TO CELL-ASSOCIATION/HEPARIN-BINDING.

TO SELL-ASSOCIATION/HEPARIN-BINDING.

THE CHURCH ITEMUS, PARAVENTPICULAR NEUROSPITHELIUM, PLACENIA AND THE CHURCH ITEMUS, PARAVENTPICULAR NEUROSPITHELIUM, ADRENAL KIDNEY GLOMERULI. ALSO FOUND IN BROWCHIAL EPITHELIUM, ADRENAL GLAND AND IN SEMINIFEROUS TUBULES OF TESTIS. HIGH EXPRESSION OF GLAND AND IN KIDNEY GLOMERULI AND CHOROLD PLEXUS IN ADULTS.

VEGF CONTINUES IN KIDNEY GLOMERULI AND CHOROLD PLEXUS IN ADULTS.

VEGF CONTINUES IN KIDNEY GLOMERULI AND CHOROLD PLEXUS IN ADULTS.

SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license*isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities are sentitled.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SUBUNIT: HOMODIMER; DISULFIDE-LINKED:
!- SUBCELLULAR FORATION: VEGF 1 AND VEGI
                                                                                                                                                                                                                                                                                                                                                    EMBL: $37052, AAB22252.1;
EMBL: $38083; AAB22253.1;
EMBL: $38140, AAB22254.1;
EMBL: M95200; AAA4547.1;
                                                                                                                                                                                                                                                                                                                 PIR; A43351; A43351.
                                                                                                                                                                                                                                                                                                                                        EMBL; U41383; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALTERNATIVE PRODUCTS: THREE FORMS (VEGE-1, VEGE-2 AND VEGE-3) ARE
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Usage by and for commercial
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Best Local Similarity
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Q25464;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Thouse K., Takenchi Y., Miki b., edo S.; "Missel adhesive plaque protein gene is a novel member of epidermal growth factor like gene tamily.";
J. Biol. Chem. 270:1698-6701(1995).
I PHACTION: PROVIDES ADHESIVENESS TO THE MISSEL'S FOOT MISSELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADHESIVE PLAQUE MAIRIX PROTEIN 2 PRECURSOR (FUOT PROTEIN 2) (MGFP2)
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60 MAY 2000 (Rel. 8), Last sequence update)
20 AUG 2001 (Rel. 40), Last annotation updat
                                                                                                                             entities requires a license agreement (See http://www.or.send.an.email to license isb sib.ch).
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InterProp
                           furth tarm
                                                              EMBL; 043794; BAA07852.1;
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                                                                                                                                                                                                                                                                                                                                                                                           FIM: SOME TYPOSINES ARE HYDROXYLATED (THUS PRODUCING DOPA = 3,4-01HYDROXYPHENYLALANINE).
SIMILARITY: CONTAINS II DEFILIKE DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRODUCE ONE OF THE STRONGEST WATER INSOLUBBLE GLUE. THE MUSSEL'S A BUNDLE OF THREADS, CALLED A BYSSUS, FORMED BY A FIRMOUS COLLECTED WITH ADBESTVE PROTEINS.
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MISSING (IN ISOFORM VEGF-2).
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     Townson S., Layercrantz J., Grimmond S., Silins G., Nordenskjoeld M., Weber G., Hayward N.K.: Middleskjoeld M. Weber G., Hayward N.K.: "Characterization of the murine VERE-related factor gene.": Hiochem. Blophys. Res. Commun. 220:922-928(1996).
-!- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS. BINDS HEPAKIN.
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P49765:
01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           olofsson B., Pajusola K., Kilpiinon A., von Pilor G., Joseph
Saksola o orpina A., Portorsson R.E., Alltijo K., Priksson
entities requires a license agreement (See http://www.isb-sib.ch/announce/or-send an email to licenselisb-sib.ch).
                                           the European Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics, and the EMRL outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 GKTYTOKOAYOWPGPHOTEKAYKPNPOVVSKPOKNPOKOTWNOKAYPOKGAYPOGPHOT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 CONRGROYPONSOLGEROROVGGYRGFTGFT/K--PNFG------NTKFCKNGGRONYN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165 KNKOBOTERIOTKOON KOPOVIOUS SODOO QENAOKENIA SADOO OSADKEGDY - SOEDE - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163 NSEGLQCMNTSEGYLSELLEBIIVPLSQ****GPKPVI*****-1SEANHISCRCMSKL 211
                                                                                                                                                                                                SIMILARITY BELONGS TO THE PDGE/VEGE FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                           SHBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
TO THE EXTRACELLULAR MATERY UNLESS RELEASED BY HEPARIN. FIGNEY
TISSUE SPECIFICITY: ARUNDANTLY EXPRESSED IN HEART, BRAIN, FIGNEY
                                                                                                                                                                                                                                                                                                                        WITH VEGE
                                                                                                                                                                                                                                                                                                                                          SUBUNIT: HOMODIMER; DISULFIDE-LINKED. CAN ALSO FORM HETERODIMER
                                                                                                                                                                                                                         AND SKELETAL MUSCLE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------PHKELDEDSOUCV------GKNELEENSOGANEFERENTOOCVERTOREN 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KOGYSGFTOKVNVCKETECKNSGKOVNKGSSYNCICKGGYSGFTOGENVCKENE 310
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 Matches
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Best Local
                          MEDLINE 97077124; PabMed-8919691;

Grimmond S., Lagercrantz J., Drinkwater C., Silins G., Townson S.,
Pollock P., Gotley D., Carson E., Rakar S., Nordenskjoeld M., Ward I.,
Pollock P., Weber G.;

Hayward N., Weber G.;

"Cloning and characterization of a novel human gene related to
vascular endethelial growth factor.";

Genome Res. 6:124-131(1996).

-i- FUNCTION: CROWTH FACTOR FOR ENDOTHELIAL CELLS. BINDS HEPARIN.
-i- SUBRINIT: HOMODIMER; DISULFIDE-LINKED. CAN ALSO FORM HETERODIMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE: PS00249; PDGF 1; 1.
PROSITE: PS50278; PDGF 2; 1.
Mitoden; Growth factor; Sidnal; Heparin-binding.
SIGNAL 1 21 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-00T-1996 (Rel. 44, Created)
01-00T-1996 (Rel. 44, Last sequence update)
29-AUS-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-P) (VEGF RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00341; PDGF; 1, Protom: proton:
                                                                                                                                                                                                                                       "Vascular endothelial growth factor B, a novel growth factor endothelial cells.";
                                                                                                                                                                                                                                                                         Saksola O , Organa A , Pottorsson R F , Alitalo K , F
                                                                                                                                                                                                                                                                                                         MEDLINE-96197355; PubMed-8637916;
                                                                                                                                                                                                                                                                                                                                                                           Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Enteleostomi:
Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.
                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGFB OR VRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P49765;
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EMBL: 043837; AAC52553.1;
                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                       Proc. Natl. Acad. Sci. U.S.A. 93:2576-2581(1996)
                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                             NCBI_Tax1D=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VEGB_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 RGLELNPUTCRC 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          278 PNKELDEDTCQC 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224 SLPATL-POCOAAN-----KTCPTNYVWNNYMCRCLAQQDFIFYSNVEDUSTNGFHDVCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164 SEGLQCMN1S:GYLSKTLFELTVFLSQGFKFVTLSFANHTSCKCMSKLDVYFQVHSIIFF 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104 KFAAAHYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGAATNTFFKPPCVSVYRCGGCCN 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84 FESSI BOVE COGHOVEMOLIA IDVERSOCIOE --- MSLEBHSCOFOREK-----KKESAVKP 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 QEPGPSHQKKVVPW:PVYAPAT-OQPVFVVVPI SMFI MGNVVKQI VPSOVTVQVCGGCCP
SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
                 WITH VEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P15692;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 188 VASCULAR ENDOTHELIAL GROWTH FACTOR 188 AA; 21442 MW; D52A055FB995E9CA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative 24; Mismatches
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27.1%;
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Pred. No. 1.5e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      188 AA
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Reymolds L.P., Moor R.M.;
"Characterization and expression of yasemlar endethelial growth
                                                                                                                                                                                                                                                                 01 of 1996 (Rel. 44, Created)
01 of 1996 (Rel. 44, Last sequence update)
20 AUG 2001 (Rel. 40, Last amoutation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECUESOR (VECE) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license-risb-sib-ch)
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                                                     MEDIINE 97117958; PubMed 8958842; Reducer D.A., Dai Y., Li J., Charn
                                                                                                                                               NORT FAXID SS40:
                                                                                                                                                                                Bukaryota: Metazoa; Chordata; Ctaniata; Vertebrata; Enteleostomi;
Mammalia: Entheria: Cetartiodactyla; Ruminantia: Pecora; Bovoidea;
                                                                                                                                                                                                                      ovis aries (Sheep).
                                                                                                                                                                                                                                                                                                                                                                  ABON SHEEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE 188 AA; 21261 MW; F04654D5A3727194 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitodom: Growth factor: Signal: Heparin binding. SIGNAL | POPENTIAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSTITE: PSOUZ49; PROF 1; 1. PROSTITE: PSN0278; PROF 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Probom; PD001629; PDGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HS:B; P15692; IVPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL: 04 (86)
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                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                      PERMEABILITY FACTOR) (VPF).
                                                                                                                                                                                                                                                                                                                                                 P50412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMART: SMOOL41; PDGF; 1.
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                                                                                          TISSUE Kidney:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139 RPLCPRCIQHHQRPDPRIC-----RCRC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                           175 ELMPDTCRC 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  167 LOCMNTSTGYLSKTLFEITVPLSQGPKPVTISFANHTSCRCMSKLDVYRQVHSIIRRSLP 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [07] AAHYNTETINSTONEWRKIQCMFREVCIDVGKEFGAATNIFFKFFCVSVYRCGGCCNSEG Too
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             227 ATL PONGAAN ----KTOPINYYWNYMOROLAQODFIFYSHVEDDSTNOFHDVOGENK 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hosal Similarity 27.5
hos 52; Conservative
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TISSUE SPECIFICATE EXTREMENSED IN ALL TISSUES EXCEPT LIVER.
TISSUE SPECIFICATE OF THE POSEZVET FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LECVETGORQVRMQTLMTRYESSQLGE---MSLEERSQCECRER----KKUSAVREDSE-138
                                                                                                                                                                 Sign Countings
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27.5%: Prod. No. 1.
                                                     Li J., Charnock Jones D.S., Smith S.K.,
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Best Local Similarity
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01-007-1996 (Rel. 36, Last sequence update)
15-JUL-1996 (Rel. 36, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGF) (VASCULAR PERMEABILLITY FACTOR) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (Soo http://www.isb-sib-ch/announce/or-send-an-email to-license/sib-sib-ch).
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-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL CELL GROWTH, INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00141; PDGF; 1.
PROSTITE; PS00249; PDGF_1; 1.
PROSTITE; PS50278; PDGF_2; 1.
           Submitted (EFR-1998) to the EMRL/ConHank/ODBJ databases
                              Takahashi
                                          SPECIES Chicken; TISSUE Heart;
                                                           SEQUENCE FROM N.A.
                                                                                                                                          Coturnix coturnix japonica (Japanese quail).
Eukaryeta: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
                                                                                                                                                                                             VEGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X89506; CAA61677.1; HSSP; P15692; IVPF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -1- SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
-1- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR
                                                                                            NCB1_TaxID=9041, 93944;
                                                                                                                            Archosauria; Aves; Neognathae; Gallitormes; Phasianidae; Phasianinae;
                                                                                                                                                                            Gallus gallus (Chicken), and
                                                                                                                                                                                                                                                                                                          AECE_CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mitogen; Growth tactor; Glycoprotein; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                       173 SIGYLSKILFELIVPL-----SQGPKPVTISFANHISCKCMSKLDVYRQ 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     113 ETLKSTDNEWRKTQCMPREVCTDVGKEFGAATNTFFKPPCVSVYRCGGCCNSEGLJCMNT 172
                                                                                                                                                                                                                                                                                                                                                                                          97 EEE----FNETMQIMRIKPHQSQHIGEMSFLQHNKCECRPKKDKARQ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                      38 EVMKEMD-VYQRSFCRPIETLVDIFQEYPDEIEFIFKPSCVPLMRCGGCCNDESLECVPT 96
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33.4%; Pred. No. 4.5e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17; Mismatches
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INTERCHAIN (BY SIMILARITY)
N-LINKED (GLENAC. . . ) (PO
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VASCULAR ENDOTHELIAL GROWTH FACTOR.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Flanme I. von Reutern M., Drexler H.C., Syed-Ali S., Risau W.; "Wespergression of viscalar and dealed growth from in the avian embryo induces hyperrused larization and increased vascular permeability_without alterations of embryonic pattern formation.":
                                                                                                                                                                                                                                                                                                                                                                                                                        VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Finding 1., Broier G., Risau W.; "Vascular endothelial growth factor (VEGF) and VEGF receptor ^{\prime\prime}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 60-187 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPECIES Cledjuponica: IISSUE Embryo;
MEDLINE 96005007; PubMed-7556923;
                                                                                                                                                                                                                                                                                                                                                                                         VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYL
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PROSITE: PS50278: PDGF_2: 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL: 879680; AAR45371.1; HSSP: P15692; 2VGH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL: AB011078; BAA24925.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          eutities requires a license agreement (See http://www.ish-sib-ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               differentiation in the quall embryo.":
Dev. Biol. 169:699-712(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (flk-1) are expressed during vasculogenesis and vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDITINE 95301109; PubMed 7781909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dev. Biol. 171:399-414(1995).
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                                                                                                                                                                                                                                                                                                                        VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro;
                                                         113 EILKSIDNEWPKT@CMPREVCIDVGKFFGAAINTFFKPPCVSVYPCGGCCNSFGL@CMNT 172
                                                                                                                                                               Local Similarity
39 EVIKELE-VYERSECRITETI.VDIFQEYPDEVEYTERPSCVPTM&@AGC@GDFGLECVPV 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBJUNT: HOMODIMER: DISULFIDE-LINKED (BY SIMILARITY).
ALTERNATIVE PRODUCTS: THREE ISOFORMS (VEGF-190, VEGF-146 AND VEGF-
166) ARE PRODUCTE AS A RESULT OF ALTERNATIVE SPITCING OF THE SAME
GENE. THE LONGER FORM CONTAINS A BASIC INSERT WHICH ACTS AS A CPIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY: BELONGS TO THE PDGE/VEGE FAMILY OF GROWTH FACTORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: ABUNDANTLY AND EQUALLY EXPRESSED IN HEART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FORM IS DETECTABLE ONLY FROM DAY 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMOOL41: PDCF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PD001629;
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                                                                                                                             Conservative
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22.1%;
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66
                                                                                                                       Score 173; DB I; was pred. No. 5.7e-07; wismatches 82;
                                                                                                                                                                                                                                                                                MISSING (IN ISOFORM VEGE-166).
F -> L (IN ISOFORM VEGE-16).
MISSING (IN ISOFORM VEGE-146).
                                                                                                                                                                                                                                                                                                                                                    INTERCHAIN (BY SIMILARITY).

INTERCHAIN (BY SIMILARITY).

N-LINKED (GLCNAC. . .) (POTENTIAL).

K -> N (IN ISOFORM VEGF-166).

MISSING (IN ISOFORM VEGF-166).

F -> L (IN ISOFORM VEGF-116).
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NOTC_DROME
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE 97257846: PALMOS 3007327;
Kelley M.R., Kidd S., Berg R.L., Young M.W.;
"Restriction of P-element insertions at the Notch Locus of Drosophila melanogaster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1986 (Rel. 03, Greated)
01-FFB-1996 (Rel. 33, Last sequence update)
20-ANG-2001 (Rel. 40, Last annotation update)
NEOROGENIC LOCUS NOTCH PROTEIN PRECURSOR.
NEUROGENIC GENES.
-!- SIMILARITY: HIGH: WITH OTHER NOTCH-TYPE PROTEINS
-!- SIMILARITY: CONTAINS 36 EGF-LIKE DOMAINS.
-!- SIMILARITY: CONTAINS 3 LIN/NOTCH REPEATS.
-!- SIMILARITY: CONTAINS 5 ANK REPEATS.
                                                                                                                                                                                                                                                                                                                                                              Harris W.A.; "Many cell types specified by Notch function."; Curr. Biol. 1:120 122(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wharton K.A., Yedvokolok B., Finnerty V.G., Artavanis-Tsakonas S.; "opa a newel family of transcribed repeats shared by the Notch locus and other developmentally regulated loci in D. melanoquaster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    product that shares homology with proteins containing EGF-like repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ephydroidea: Drosophilidae: Drosophila.
NCB1_TaxID 7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence of the notch locus of Drosophila melanogaster: relationship
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-OREGON-R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cell 43:567-581(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wharton K.A., Johansen K.M., Xu T., Artavanis-Tsakonas S.;
"Nucleotide sequence from the neurogenic locus notch implies a gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pterygota; Neoptera; Endopterydota; Diptera; Brachycera; Muscomorpha
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Eukaryota: Metazoa: Arthropoda: Tracheata: Hexapoda: Insecta:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTC_DROME
P07207; PU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REVIEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell 40:55-62(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-85099329; PubMed-2981631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 2505-2611 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the encoded protein to mammalian clotting and growth factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDI INF-87064624; PubMed-RO47517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-86079539, PubMod-3935325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                     MISCELLANHOUS: SEPARATION OF NEUROBLASTS FROM THE ECTOLERM INTO THE INNER PART OF EMBRYO IS ONE OF THE FIRST STEPS OF CNS
                                                                                                                                                                      DEVELOPMENT IN INSECTS, THIS PROCESS
                                                                                                                                                                                                                                                                       SUBCEILULAR LOCATION: TYPE I MEMPRANE PROTEIN.
                                                                                                                                                                                                                                                                                                      ECTODERM
                                                                                                                                                                                                                                                                                                                                  FUNCTION. WOTCH PROTEIN IS ESSENTIAL FOR PROPER DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell. Biol. 6:3094-3108(1986).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D-----VYNVHMETARIKPHOSOHTAHMSFLOHSKODOKPKKDVKNKOEKKSKKKKKL 15a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PU4154;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7-1545-1548(1487).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --SEHCEPCSERRRILEVO-
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SUMMARIES

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Gene. GDB:VEGFC: VRP Cross-references: GDB:3890883: OMIM:601528 1 12/Domain: Signal sequence #status predicted -SIG 13-102/Domain: Propertide #status Fredicted <prop< td=""><td>1, NI5.g1373426, FIDN:AAR02909.1;</td><td>A.Accession. G02659 A.Stutus: preliminary: translated from GB/EMBL/DDBJ A Molocule true: mRNA</td><td>rary, May 1996</td><td></td><td></td><td>December 1995 growth factor</td><td>,</td><td>povised in reterence 869207</td><td>e hot shown, not comp</td><td>10.96178224</td><td>A,Title: A move vascalar endothelial growth factor, VEGE-C,</td><td>R) Jouleon, C., Pajusola, K., Kaipainen, A., Chilov, D., Lahtinen, EMBO J. 15, 290-298, 1996</td><td>A:Note: only a part of the translation is shown</td><td>5; NID-g1177488; PIDN > was sabmitted to th</td><td>e not shown</td><td>\$64207; MUID-96203094</td><td>/ascular endothelial</td><td>77-Apr 1996 #Sequence_revision 01-NoV-1996 on: \$69207; \$61795; \$71443; \$69208; 602659 V.; Pajusola, K.; Kaipainen, A.; Chilov,</td><td>DHM</td><td>precursor -</td><td>ALIGNMENTS</td><td>2 A43434</td><td></td><td></td><td></td><td></td></prop<>	1, NI5.g1373426, FIDN:AAR02909.1;	A.Accession. G02659 A.Stutus: preliminary: translated from GB/EMBL/DDBJ A Molocule true: mRNA	rary, May 1996			December 1995 growth factor	,	povised in reterence 869207	e hot shown, not comp	10.96178224	A,Title: A move vascalar endothelial growth factor, VEGE-C,	R) Jouleon, C., Pajusola, K., Kaipainen, A., Chilov, D., Lahtinen, EMBO J. 15, 290-298, 1996	A:Note: only a part of the translation is shown	5; NID-g1177488; PIDN > was sabmitted to th	e not shown	\$64207; MUID-96203094	/ascular endothelial	77-Apr 1996 #Sequence_revision 01-NoV-1996 on: \$69207; \$61795; \$71443; \$69208; 602659 V.; Pajusola, K.; Kaipainen, A.; Chilov,	DHM	precursor -	ALIGNMENTS	2 A43434				
16.	EAAB02909.1: PID:q1974427			PIDM.AAA85214.1, PID.d1150989		related protein (VRP): A ligand and	S.M.: Avraham, H.: Wood, W.I.	869207	A, Status - nativity acid sequence not shown, not compared with conceptual translation A; Molecule type: mRNA A; Residues: 70-419 <2001>		, VEGF-C, is a ligand for the Flt4	D.: Lahtinen, I.: Kukk, E.: Saksel	oronoo x61745	A.Oross references: FMRL-X94216; NID-q1177488; PIDN-QAA63907 1; PID-6221096; PID-q118 A.Oross the publicatide columnes was submitted to the FMRL Data Library, lecomber 1996		i	EMBO J. 15, 1751, 1996 A:Title: Corrigendum: A novel vascular endothelial growth tactor, VEGE-C, is a ligand	R:Joukov, V.; Pajnsola, K.; Kaipainen, A.; Chilov, D.; Lahtinen, I.; Kukk, E.; Suksel		human		Turin (EC 3.4.21./	fibrillin-2 precur fibrillin-2 precur	homeotic protein 1	hypothetical prote	laminin beta-1 cha

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                                                                                                              NITESTSTEPTKSKMPOGGOPPNOGWNEKDOECKOSATGNOP 1354
                                                                                                                                             PHDVCGPNKELDED1CQCVCKGG
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eter 296 procurses - haman enmeability factor al growth factor 121 (VEGE 121); VEGE 165; VEGE 189; VE

regisija 20 Aug 1992 #Fext change 05 Nov 1999 341551; A40454; B40454; C40454: A40079; A40080; UQ1463; ner, J.; Cachianes, G.; Li, B.; Leung, D.W. ral growth factor family: identification of a fourth-mov(D:92168017) $^{\circ}$ 1991

NID:g246155; PID:g246156

e not shown

e not shown; not compared with conceptual translation

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artman, T.; Silva, M.; Gospodarowicz, D.; Fiddes, J.C.; 4, 1991

seular endothelial growth factor. Multiple protein form: up:91268072

GB:M63972; GB:M63973; GB:M63974; GB:M63975; GB:M63976;

GB:M63972; GB:M63973; GB:M63974; GB:M63975; GB:M63977;

GB:M63972; GB:M63973; GB:M63974; GB:M63978; GB:M6397B ivi. G.: Sanzo, K.; Warren, T.; Peder, J.; Connolly, D.

tactor, an endothelial cell mitogen related to PDSF. HD:90069609

nceptual translation

MID:g440300 PIDN:AAA36807.1; PID:g4440801 Kuang, W.J.: Goeddel, D.V.: Ferrara, N.

growth factor is a secreted angiogenic mitogen.

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As Description, promotes thaid and protein leakage from blood vessels.

Observants: aftermative splitning analogues(s) dimer, disn'tide bead, extracellular profile products aftermative splitning by all payons of 27 products spredicted. V22 Priling Products as the observance of the products of estatus products products.

Priling 2002 27 Products analog of observations of the products of estatus products of the products of estatus products.
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ArTitle: Human vascular permeability factor. Isolation from U937 cells. Arketerence number: A34492; MUID:90062112
A:Accession: A34492
A:Molecule type: protein
A:Residues: 27-45/43-49, K:772-76, C;78 81:59 71 <Con-
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A:Experimental source: AIES:KMposi's sufcome cell
A:Accession: JQ1464
A:Accession: JQ1464
A:Molecule type: mRNA
A:Molecule ty
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A:Title: AIDS-associated Kaposi's surcoma colls in culture express vascular endothelial A:Retorence number: JQ1463; M0ID:92231879
A:Recession: JQ1463
A:Molecule type: mkNA
A:Residues: 1-140,'N',183-232 -WEI>
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A:Accession: A40080
A:Status: not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-140; NY, 184-232 <LEU>
                                                                                                                                                                                                                                                                 C:Species: Sus scrota domestica (domestic pid)
C:Date: 14-Jul-1995 #sequence_revision Z1-Jul-1995 #text_change 05-Nov-1999
C:Accession: S52130
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A;Reterence number: $52130; MOID:95143284
A;Accession: $52130
                                                                                                                                                           RiSharma, H.S.; Tang, Z.H.; Gho, B.C.G.; Verdonw, P.D.
Biochim, Biophys. Acts 1369, 235-238, 1995
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                                                                                                     A:Title: Nucleotide sequence and expression of the porcine vascular endothelial growth
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RECOMD. G.: Bayne, M.L.; Soderman, D.D.; Kwok, P.W.; Sullivan, K.A.; Palisi, T.M.; Frot. Natt. Acad. Sci. U.S.A. 87, 2028-2022, 1990

A.Titte. Amino acid and eDNA segrences of a mascular endethelial cell mitogen that Algoricomomember: A35987

A.Accession: A35987
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C.Species: Rattus norvegicus (Norway rat)
C.Date. [6.Nov [550 #sequence_revision [6.Nov-1990 #text_change 05-Nov-1999
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A; Residues: 1-190 < CON
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A; Molecule type: mRNA
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155 Q-----
                                                                      262 SNVEDDSTNGFHDVCGFNKELDEDTCQCVCKGGLkFSSCGPHK-ELDkDSCQC 313
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                                                                                                                                                                                                                                                                                                                                       145 NTEEKEPOVSVYKOGOOONSEGLOOMNISTOYLSKILFEITVELSO--OPKEVILSPANH 202
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Local Similarity 24.8%; Pred. No. 1.2e-08;
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                                                                                                                                                                                                    TSCRCMSKLDVYRQVHSIIRRSLPATLPQCQAANKTCPTNYVWNNYMCR-CLAQQDFIFY 261
                                                                                                                                                                                                                                                                    EYIFKESCVELMEGAGGGNUEALEGVETSESNVTMQIMEIKEHQSQHIG----EMSFLQH 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8.6%; Score 201.5; 25.8%; Pred. No. 5.8
-DPOTCKCSCKN--TDSKCKARQLELNERTCRC 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fred. No. 5.8e-08;
                                                                                                                                         ---RIKPENH-----CEPCSEREKHLFV 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2; Length 190;
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Science 246, 1806-1809, 1989
Astitle: Vascular endothelial growth factor is a secreted angiogenic mitogen.
Asketectence number: A40080 MUID:90069608
Asketectence number: MANA
Asketestence info@00
A:Molecular type: mRNA
Asketestence in 190 - LEH-
Asketestence in 19
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C)Date: 30 Jun 1992 #seepeenee revision 30 Jun-1992 #text_change 05-Nov-1999
C)Accession: B40080; B4787; A33255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ç
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A;Reterence number: A61029; MUID:91197543
A;Acression: A61029
A;Meression: Dittell
A;Meression: Protein
A;Meression: A1029
A;Meression: A10214
C;Keywords: alternative splicing; angiogenesis; dimer; disultide bond; glycoprotein; mit
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                                                     Archoss references: GR:M31836; NID:q163808; PIDN:AAA30804.1; PID:q163809
R:Ferrara, N.; Henzel, W.J.
Riochem, Biophys. Res. Commun. 161, 851-858, 1989
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A:Reference number: A44881; MUID:92274860
A:Acression: B44881
A:Molecule type: mRNA
Affither Pituitary follicular cells secrete a novel heparin-binding growth factor specif
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Growth Factors 4, 58-59, 1990
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J. Biol. Chem. 267, 16317 [6322, 1992]
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Best Local Similarity 25.9%; Pred. No. 8e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290 VCKGGLRPSSCGPHK_ELDRDSCQC_413
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A;Reference number: A34255; MUID:89286596
A;Accession: A34255
A;Molecule type: protein
A;Residues: 27-31 - FER>
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E.27 196/Ej.da.t. vascalar endothelial growth factor #status predicted -MAI
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148 -----
                                                                                                                                                                                                                                                                                                                                                   173 STGYLSKTLFEITVPL-----SQGPKPVTISFANHTSCKCMSKLDVYRQVHSIIKRSLPA 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           113 ETLKSTDNEWRKTOCMPREVCTDVGKEFGAATNTFFKPPCVSVYRCGGCCNSEGLOCMNT 172
                                                            288 QCVCKGGLKESSCGEHKED - - DKDSCQCVCKNKLFENSCGANK - EFDENTCQC - 137
                                                                                                                                                                                                        228 TLPOCQAANKTCPTNYVWNNYMCRCLAOQDFTFYSNVEDDSTNGFHDVCGPNKELDEBTC 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               toral Similarity
mes 56; Comserv
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- PRKHLEVebbetokosokni - - osrokareji bi nektoro i 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8.5%; Score 198.5; DB 2
24.9%; Pred. Mc. 1.1e-07;
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C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 08-oct-1999 C;Accession: A44881; C44881; A60932; S52136 vascular endothelial growth factor-3 precursor - mouse N:Contains: vascular endothelial growth factor-2; vascular permeability factor A: Note: sequence extracted from NCBI backbone (NCBIN:104677, NCBIP:104678) A; Experimental source: embryo A; Cross-reterences: GB: 837952; NID:q249856; PIDN: AAB22252.1; PID:q249857 A; Residues: A: Molecule type: mRNA A: Accession: A44881 A; Reference number: A44881; MUID:92274860 A:Title: Expression of vascular endothelial growth factor during embryonic angiogenes Development 114, 521-532, 1992 R; Breier, G.; Albrecht, U.; Sterrer, S.; Risan, W. C; Species: Mus musculus (house mouse) 1-214 <BRE>

A:Molecule type: mRNA A:Residues: 1 110,209 214 <BR2>

A;Cross-reterences: GB:S38100; NID:q249860; PIDN:AAA622254.1; PID:q249861 A;Note: sequence extracted from N°N1 backbone (NCBIN:107624, NCBIP:107625) R:Clauss, M.; Gerlach, M.; Gorlach, H.; Brett, J.; Wang, F.; Familletti, P.C.; Pan, Y R:Clauss, M.; Gerlach, M.; Gerlach J. Exp. Med. 172, 1535-1545, 1990

A; Reterence number: A60932; MUID: 91079755 A:Title: Vascular permeability factor: a tumor derived polypeptide that induces endot

A; Accession: A60932

A: Molecule type: protein A: Residues: 27 33 30LA:

A:Residues: 27-43-CLA: RESURGIDATA, T., Kaul, S.C., Mitsui, Y., Wadhwa, R. Blochim, Biophys. Acta 1224, 465-470, 1994 A;Fitle: Enhanced expression of multiple forms of VEGF is associated with spontaneous A;Beteronce number: 852146; MUID:95101726

A; Accession: S52136

A; Status: preliminary

A; Molecule type: protein A; Residues: 27-46 <8005

C; Keywords: alternative splicing; angiogenesis; disulfide bond; glycoprotein; homodim C:Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3

F;27-214/Product: vascular endothelial growth factor of #status experimental omAT F; 1-26/Domain: signal sequence #status predicted .SIG.

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Fil-17/Commin. Signal sequence #status predicted (SIG)
Fil-17/Commin. Signal sequence #status predicted (SIG)
Fil-17/414/Chamin. Supplementary (Sign)
Fil-17/44-440/Chamin. Supplementary (Sign)
Fil-17/44-440/Chamin. Supplementary (Tyr)
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Hiol. Chem. 270, 6698-6701, 1995
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                                                                                                                                                          212 DYYRQVHSTIRRSLPATL-PQCQ---AANKTCPTNYVWNN----YMCRCLAQQDFTFYS 262
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Decylo 214, milarity 25.5%; Fred. No. 2.1e 97; Conservative 38; Mismatches 84; Indels 35, Caps
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A:Residues: 1-188 | Fire | Fir
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Gene 88, 133-140, 1990
A:Title: Balbini ring 3 in Chironomus tentans encodes a 185 kba secretory protein wh
A:Reference number: .000542; MUTD-90269600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochem, Biophys. Res. Commun. 229, 922-928, 1996
A:Title: Characterization of the murine VEGF-related factor gene
A:Reference number: 304679; MULD:96183052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C:Date: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 05-Nov-1999 C:Accession: JC4680 R:Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Nordenskjoeld, M.; Weber,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N;Alternate names: VRF 167 protein
C,Species: Mus musculus (house mouse)
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F)1-21/Domain: signal sequence #status predicted <816>
F)22 188/Product. Jacobian collibrational promits factor related factor #status predicted
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Query Match Best Local : Matches 5

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Similarity

7.7%; Score 179.5; DB: 27.1%; Fred. No. 2.8e-06 ative 24; Mismatches 7

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C)Species: Halocynthia roretzi
C)Date: 02 Sep 2000 #sequence_revision 02-Sep-2000 #Fext_champs 02 Sep-2000
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Dev. Genes Evol. 207, 471-480, 1997
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                                                                                                                                                                                                                                                                                                                                                                                                1178 EGRECOGDANECTSNIFCSSFOSTACTOGSNSYQCACDADALGSECOTRICGSCDINECTNO 1782
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402 CROVESYW 409
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                                                                                                                         COCTWOYYOKKCENSYSMCSANERCYHEAPOQUOTC 1288
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                                                 R;Weinmaster, G.; Roberts, V.J.; Lemke, G. Development 116, 931-941, 1992
                                                                                                                                                                                                                                                  C;Species: Rattus norvegicus (Norway rat)
C;Date: 2: Jan 1994 #sequeice_revision 18:Nov-1994 #text_change 13:Ang 1999
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                                                                                                                                                                                         C; Accession: A49128
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A; Title: Notch2: a second mammalian Notch gene
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A.Status, Freliminary
A.Molecule type: mRNA
A;Residues: 1-120 <TIS>
A;Cross-jeterences: GB:M44750; NiD:q164810; PIDN:AAA40805.1; PID:q164811
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A;Molecule type: mRNA
A;Residues: 1-146 <RED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ovine vascular endotheijai growth factor—sheep
C;Species: Ovis Orientalis aries, ovis ammon aries (domestic sheep)
C;Sath: [3 Jan 1996 #Sequence_ferision 0] Mar 1996 #text_-hance 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Vascular endothelial growth factor: a new member of the platelet derived gro
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A 3 3 7 8 7
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A; Accession: $57956
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: A33787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Reference number: A33787; MUID: 90121225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R:Tischer, E.: Gospodarowicz, D.: Mitchell, R.: Silva, M.: Schilling, J.: Lau, K.: Cr
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Bost torail o
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                             Ouery Match 7.4%; Score 172.5; DB 2; Length 120; Best Local Similarity 33.9%; Pred. No. 5.96-06;
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                                                                173 STGYLSKTLFELTVPL-----SQGPKPVT1SFANHTSCRCMSKLDVYRQ 216
                                                                                                                                                                                              113 BILKY IDNEWRALGOMERBYO I DYGABEGAALNIE EKERTYYYYKOOGTONYBOLGOMNII 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17 C STOYLSKILFELLVIL ---- SOGPKPVILSFANHTSORMSKLOVYRO 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           113 ELLKSTUNEWKKTQCMPKEVCTDVGKEFGAATNIFFKFFCVSV1RCGCPCNSEGLQCMNI 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match 7.4%; Score 174.5; DB 17731 Similarity 38.9%; Pred. No. 6e 06; hes 37; Conservative 17; Mismatches
71 EE----FNITMQIMKIKPHQSQHIGEMSFLQHNKCECKPKKDKARQ 112
                                                                                                                             12 EVVKEMD-VYOKSECKELETIJOTEQEYEDETEFTEKESCVELMKCGGCCNDESLECVEL 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97 EE----FNITMOIMRIKPHOSOHIGEMSFLOHNKGEGEPKKDKARO 138
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                                                                                                                                                                                                                                                               Conservative
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E:1067-1099/Domain: EGF homology <EGX3>
F:1154-1144/Domain: EGF homology <EGX4>
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A:Accession: A49128
A:Status: preliminary; not compared with conceptual translation
Search completed: February 20, 2002, 16:26:18 Job time: 326 sec
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E:1994-1995/Lommin: ankyrin repeat homology <aN3>
E:1994-2004/20mmin: ankyrin repeat homology <aN4>
E:1994-2004/20mmin: ankyrin repeat homology <aN4>
E:2004-2041/20mmin: ankyrin repeat homology <aN5>
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C:Superfamily: unassigned ankyris repeat proteins, ankyrin repeat homology: BCF homology
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A: Residnes: 1-2471 wWEL+
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                                                                                                                                                                     1370 NHKDCESGCASNEC----QHGGTCYEQRQPPYYSCRCSPPEW 1407
                                                                                                                                                                                                                                                                                                         1314 LNGGTCAVASNVPDGFTCRCPPGFSGARCQSSCGQVKCRRGEQCVHTASGPHCFCP---- 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1254 PGFAGERCEGO INECLSNPCSSEGSILICIQUKNNYQCVCKSAFTGKHCETELDVCPQKPC 1313
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196 TISFANHTSCRCMSKLD-VYRQVHSI-----IRRSLPAT-LPQ----CQAANKT----C 239
                                                                                                                                                                                                                                       373 HHQTC--SCYRRPCANRLKH---CDPGLSFSEEVCRCVPSYW 409
                                                                                                                                                                                                                                                                                                                                                                                  349 LNPGKCA-----CEC-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       963 TOSDYVNSY FOTOPAGEHGVHOENNI ----- DECTESSOFNIGGTOVDGINSFSCLOPVGF 1017
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51 FECKLEEFCLESV------SSVIEL--MSVLYPDYWKMYKCC------LRKGG-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90 WQQPTLNTRTGD-SVKFAAAHYNTEILKSIDNEWRKTQCMPREVCIDVGKEFGAAINTEF 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QPCQNOSTCIDLVNHFKCSCPPGIRGLLCEENIDDCAGAPHCLNGGQCVDRIGGYSCRCL 1253
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                                                                                                                                                                                                                                                                                                                                                                           -----TENTQKCFLKGKKF 372
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Maximum Match 100%
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Perfect score:
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                                                                                                                                                                                                                                                A_Geneseq_1101 * 1: 7:1.-8 1:144.
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725.694 William cell updates/Sec
11 September 1911 (1916 September 1918 AN 1920 DATE)

12 September 1911 (1916 September 1918 AN 1986 DATE)

13 September 1911 (1916 September 1918 AN 1986 DATE)

14 September 1911 (1916 September 1918 AN 1986 DATE)

15 September 1911 (1916 September 1918 AN 1986 DATE)

16 September 1911 (1916 September 1918 AN 1986 DATE)

17 September 1911 (1916 September 1918 AN 1986 DATE)

18 September 1911 (1916 September 1918 AN 1986 DATE)

19 September 1918 AN 1918 DATE)

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

AAW75742 standard; Protein; 415 AA.

Mouse vascular endothelial growth factor C protein.

14 (First entry)

AAW75742;

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Flt4; vascular endothelial growth factor C; vascular endothelial cell; lymphatic endothelial cell; myelopoiesis; andiogeneses; inflammation; lymphaneji educats, redema, elephantiusis; Milroy's disease.
New isolated vascular endothelial growth factor polypeptide(s) used to develop products for treating, e.g. cancers, inflammation,
                                       WPI, 1998 437470/37.
N-PSDB; AAV52577.
                                                                            Alitalo K, Joukov V;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The vascular endothedial growth factor C (VEGE-C) polypeptides have activities affecting growth and migration of vascular endothedial cells, promoting growth of lymphatic endothedial cells and lymphatic vessels, increasing vascular permeability, and affecting myelopolesis. The products can be used for stimulating anglogomeses, for inhibiting
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13 888 1397
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                                                                                                                                                                                                                          andiodenesis; wound healing: lymph vessel; therapy; diagnosis.
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                                                                                                                                                                                                                                                                                                        VEGE C: Fli4; receptor tyrosine kinase, VEGER 3, mouse,
                                                                                                                                                                                                                                                                                                                                                                                           Mouse Elt4 receptor tyrosine kinaso ligand VPGE-C
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              embryonal cDNA library, and shows a high degree of homology to novel, claimed human VEGF-C (see AAW009-1) and to avian (quail) vHGF-C (see AAW00934). Recombinant mouse VEGF-C holypoptides can be produced that correspond to non-human mammalian variants of VEGF-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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241 tnyvwnnymerclaggdfifysnveddstngfhdvegpnkeldedfegevekgalrpsse
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                                                                       NTOKE FLEGGER HED FISCIYER FOANKLEH DEGLISESEEVER OVESYWEEPHLM 415
                                                                                                                                              aphbeildrids - providual transcraan retorial - prockritoprinap Lupakoa cecte
                                                                                                                                                                                                                     GEHABLIJKUSCOCKUKNALIFENSCOANKEFIJENICOCKCKKFCEKNOELNEGKCACECTE
                                                                                                                                                                                                                                                                                                                                                                                                                                   Iteityplsqqpkpytisfanhtseremskldvyrqvhsiirrslpatlpgcgaanktep
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rsvssvdelmsvlypdywkmykcqlrkqqwqqptlntrtqdsvktaaahynteilksidn 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RSVSSVDELMSVLYPDYWKMYKOQLEKGGWQQPILNIKIGDSVKFAAAHYNIEILKSIDN 120
                                                                                                                                                                                                                                                                                                                                                                TNYVWNNYMCRCLAQQDFTFYSNVEIDSTNGFHDVCGPNKELDEDTCQCVCKGGLRPSSC
                                                                                                                                                                                415 AA;
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                                                                                                                                                                                               This polypeptide comprises a human foetal liver kinase I binding protein (tlk lbp) (see AAW17837) that binds to the receptor tyrosine kinase Ilk-le expressed on vascular endothelial and other cells. The mature flk1-bp can be secreted from host cells transformed with an expression vector including an isolated flk-lbp cNA clone (see AAT58811). Flk-lbp can be used to isolate cells to which it binds, for use in studying the roles of such cells and or flk-lb or vasculoweresis and angiogenesis. Angiogenesis inhibition or use in studying the roles of such cells and or flk-lb or increased vascularisation may be clinically desirable (e.g. to suppress solid tumour growth or in wound healing, respectively). The flk-lbp can be administered to treat conditions with defective or insufficient flk-l. Polypeptides may also act as carriers to deliver diagnostic/therapouricy spents to cells to which flk1-bp binds, to generate antibodies, and to identity flk-lbp antaqunists of useful for treating flk-lbp mediated conditions.
                                                                                                                 Obery Match 87.8%; Score 2048; DB 18; Length 419; Hest Local Similarity 85.4%; Pred. No. 7.9e-151; Matches 378; Conservative 28; Mishatchs 29; Indels 4;
                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 30-32; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                   INA encoding a human foctal liver kinase I binding protein - used to treat conditions with insufficient protein, deliver agents to cells and identity antagenists to treat protein-mediated conditions
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Foetal liver kinase I binding profein; human; tlk-lbp; receptor typesine kinase; viscalespecsis, anjiggenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pept ide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 wound healing: tumour; therapy; antagonist; antibody.
                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NoV-1995;
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117 SIDNEWSKT@CMERPYCIDVGKFFGRATNTEFKEPCVSVYFCG@CCNSEGL@CMNTSTGY 176
                         61
                                                                                 RSVSSVIELMSVITPENMEMTEGULEEDEWG----GETLNIFTGUSVKEAAABYNIEILE 116
                                                                     mhllyttsvacsliaaallpypreapaaaaafesgldlsdaepdageatayaskdleegl 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1997-281031/25
                                                                                                                                                                               419 AA;
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28-JUN-1996;
01-AUG-1995;
                                   01-And-1996
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vascular endothelial growth factor receptor=3; ligand;
anglogenesis; wound healing; lymph vessel; lymphangioma;
cancer; metastasis; therapy; diagnosis; antibody; inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Flt4 receptor tyrosine kinase ligand VEGF-C.
WO9705250-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF-C; Flt4; receptor tyrosine kinase; VEGFR-3; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW00932 standard; Protein:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177 LSKILFEITVPLSOGPKPVTISFANHTSCRCMSKIDVYRQVHSIIRRSLPATLPOCOAAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                               /note: "preferred active fragment of VEGF-C, retaining FIL4 ligand activity (Claim 11)"
                                                                                                                                                                                                                                                                                                                          /note= "preferred active fragment of VEGF-C,
    retaining Flt4 ligand activity (Claim 12)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "preferred active fragment of VEGF-C,
retaining F1t4 ligand activity (Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label Prepro_peptide 32..227
                                                                                           161...221
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                                                                                                                                                                                                                                                                                                                                                                                             "preferred active fragment of VEGF-C, retaining Flt4 ligand activity (Clai
                                                                                                               "preferred active tragment of VEGF-C,
retaining Flt4 ligand activity (Claim 9)"
                                                                                                                                                                                                                                                       "proferred active fragment of VEGF-C, retaining Flt4 ligand activity (Claim
                                          "professed active fragment of VEGE-C, retaining FIL4 ligand activity (Claim B)"
                                                                                                                                                                                                                                                                                                                                                                                             activity (Claim
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Best Local s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 358; Conservative
                                       AAW75740 standard; Protein; 419 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    endothelial cells (e.g. to accelerate angiogenesis and to promote endothelial function of lymphatic vessels). Inhibitors of VMSF C, such as antibodies, can be used to control endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse and quail VEGF C sequences (see AAW00934:35) have also been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lymphatic vessels, endothelial venules, FIT4 receptor in histochemical tissue) and also to modulate the growth of mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      claimed methods for detecting endothelial cells (e.g. to image
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Library. The polypeptide, or its active transments, can be expressed in transformed or transfected host cells for use in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            receptor. Its sequence was deduced from a cDNA clone (AAT84276) obtd. from a PC 3 prostatic adenocarcinoma cell (ATCC CRL 1435)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a novel ligand that binds specifically to buman EH4 receptor tyrosine kinase (VEGER 4), stimulating phosphorylation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This polypoptide comprises the pre-pro sequence of human VEGE-C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 7; Page 112 113; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        endothelial cell diseases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N PSDB; AAT84276
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14 FEB 1996;
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                                                                                                                                                                                                                                                361 octospakottikakkitibatosoyi ipotiniak rospatnyaoosorospsykkipams 419
                                                                                                                                                                                                                                                                                                                                   46.7 FOLENTOR SECTER TREATMENT AND AND TWENT THE TREATMENT AND THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RSVSSVDELMSVLYTDYWMYKCOLKKOOWO - - - OPTLNTRTODSVKFAAAHYNTEILK 116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSKTLFETTVPLS@TPKPVTTSFANHTSCROMSKLDVYRQVHSTTRRSLPACHJPQCQAAN
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                                                                                                                                                                                                                                                                                                                                                                                                                 Bost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     They can also be used for modulating the growth of endothelial cells. They can also be used to stimulate lymphocyte production and maturation and to promote or inhibit trafficking of leucocytes between tissues and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    angiogenesis, for stimulating lymphangiogenesis, treatment or prevention of inflammation, oedema, elephantiasis, or Milroy's disease. They can also be used to modulate myelopolesis, e.g. treating graph ocytopenia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                promoting growth of lymphatic endothelial cells and lymphatic vessels, increasing wascular permeability, and attecting myelopoiesis. The products can be used for stimulating anglogeneses, for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ell4; vascular endothelial growth factor C; vascular endothelial cell; lymphatic endothelial cell; myelopoiesis; angiogeneses; inflammation; lymphangiogenesis; oedema; elephantiasis; Milroy's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activities affecting growth and migration of vascular endothelial cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The vascular endothelial growth factor C (VEGF-C) polypoptides have
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 112-115; 177pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oedema, granulocytopenia or tor wound healing or tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated vascular endothelial growth factor polypeptide(s) used to develop products for treating, e.g. cancers, inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAV52576.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alitalo K. Joukov V;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-FEB-1997;
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                 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lymphatic vessels or to affect migration in and out of the thymus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYHE-) UNIV HELSINKI LICENSING LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human vascular endothelial growth factor C protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-Nov-1998 (first entry)
                                                        181 lsktiteitypisympkpytistanhtscromskldvyrdyhsiirrsipatipqeqaan 240
                                                                                                                                                                                                                                                                                                                                                                                                             y Match 87.8%; Score 2048; DB 19; Length 419; Local Similarity 85.4%; Pred. No. 7.9e-151;
                                                                                                                                                                                                                          61 RSVSSVDELMSVLYPDYWKMYKGQLRKGGWQ----QPTLNTRTGDSVKEAAAHYNTEILK 116
                                                                                                                                                                                                                                                                                                                                                1 MHLLCELSLAGSLLAAALITSPREAPATVAAFESGLGESEAEPDGGEVKAFEGKDLEEQL 60
                                                                                                                                                                                                                                                                                                       l mhllqttsvacsllaaallpqpreapaaaaatesqidlsdaepdaqeatayaskdleeqi 60
                   KTOPTNYVWNNYMCKCLAQQDETFYSNVEDDSTNGFHDVGGPNKELDEDFOQCVCKGGLR 296
                                                                             LSKTLFETTVPLSQGPKPVTTSFANHTSCRCMSKLJVYRQVHSTIRKSLPATLPQCQAAN 2-6.
                                                                                                                                          sldnowrktqpmprevoldrykefyrathtffkppresvyreggenseglgemntstsy
                                                                                                                                                                                   SIDNEWRKTQCMPREVCIDVGKEFGAATNTFFKPFCVSVYRCGGCCNSEGLQCMNTSIGY 176
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419 AA;
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                                                                                                                                                      acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from dene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary colluteral vessel development in cases of cardiac isobarmia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat isobarmia (e.g.cardiac, chronic coronary or chronic lower limb isobarmia; stroke and peripheral vascular disease); to promote healing of
                                                                                                                                                                                                                                                                                                                                                       This represents the amino acid sequence of human vascular endothelial growth factor (VEGF)-C protein. The invention provides truncated VEP (VEGF related protein) subunits that have at least one amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     recombinant: truncated; described therapy anglogenesis; cardiac ischaemia; coronary; collateral vessel development, cell drowth; migration; heart; lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors confaining nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure: Fig 1: 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New truncated vascular endothelial growth factor-related protein subunits. Lack part of the W terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WU9849300-AZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human vascular endothelial growth factor (VEGF)-C sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW86203;
                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        anglogenesis, e.g. for freating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI: 1999-009426/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGF; VRP; vascular endothelial growth tactor; VEGF-related protein:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-FEB-1999 (first entry)
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                    Local Similarity
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                                                                                                                                     skin or intestines), and to increase vascular permeability.
                                                                                                    414 AA;
      Conservative
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87.8%; Score 2048; DB 20;
85.4%; Pred. No. 7.9e-151;
mativo 28; Mismatches 29;
                                         Length 419;
indels 4;
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1 MHLLOFLSLAOSILAAALIPSPREAPATVAAFESGIGESEAEFDGGEVKAFEGKDLEEQL 60

This invention describes a novel vascular endothelial growth factor-X (VEGF-X) protein (1a) and its encoding polynucleotide (1ia) which has vulnerary, cytostatic, antipheumatic, antiarthritic, antipsorlatic and antidiabetic activity and acts as an angiogenesis and vascularization

Disclosure; Fiq 11; 127pp; English.

as cancer, rheumatoid arthritis, psoriasis and wounds

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VEGF-X; vascular endothelial growth factor; human; vulnerary; cytostatic; antifactic; antifactic; treatment; antifactic; artifactic; tractic; antifactic; vascularization redulator; vancer, pseriasis; rheumatoid arthritis; diabetic retinopathy; blood vessel; ordan repair; tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
                                                                                                                                                                                                                   Gordon RD
                                                                                                                                                                                                                                                                                  08-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB10648
                                                                                                                                      New vascular endothelial growth factor protein, useful for treating or
                                                                                                                                                                                                   Dhanaraj SN,
                                                                                                                                                                                                                                              (JANC ) JANSSEN PHARM NV
                                                                                                                                                                                                                                                                                             22-DEC-1998;
18-MAR-1999;
                                                                                                                                                                                                                                                                                                                                               21-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human VEGC protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-JAN-2001
                                                                                                                         preventing diseases associated with inappropriate anglogenesis activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        venous sore; diabetic ulcer; burns; skin graft growth; VEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177 ISKTLEFTTVPLS@GPKPVTISEANHTSCHCMSKLDVYKQVHSTIFRSIPATIPQCQAAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; Protein;
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                                                                                                                                                                                                                          Me200028211 AI
                                                                                                                                                                                                                                                                                               Homo Saptems
                                                                                                                                                                                                                                                                                                                                                                    Milroy Nonne Syndrome: Tymphoedema praecox; VEGE C; vascular endothelial growth factor C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; Elt4; Ims like tyrosine kinase 4; lymphoedema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               skin graft growth, tissue repair, proliteration of new blood vessels, tissue requieration and organ repair by promoting angiogenic activity or viscularization. This sequence represents the human VESC protein used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of preventing cancer, rheumatoid arthritis, psoriasis and diabetic retinepathy by inhibiting angiogenic activity or inappropriate
   26 MAR 1999;
                                                                            26 MAR 1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Buman VEGE C protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB29048,
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                                                                                                                                                                                                                                                                                                                                                                                                                                             vascular endethedial growth factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31 JAN 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SZ BYTENTOKYFILEGKFEINGOVS YRREWINING INSTANTORYLSSESPEZYPZYRKRITH) (11 111)
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85.4%; Pred. No. 7.9e-151;
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AAY70749

AAY70749 standard; Protein; 419 AA

Human prepro vascular endothelial growth factor C.

AAY70749; 17-AUG-2000

(first entry)

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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           also known as FIT4 or two like tyrosine kinase 4) alleles they possess and thus their likelihood of developing bereditary lymphoedema. Conditions associated with lymphoedema include Milroy Nonne syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is the protein sequence for the buman vascular endothelial growth factor C (PRGF C). It was used to demonstrate the methods of the invention, which involve the screening of individuals to determine which vascular endothelial growth factor receptor 3 (PESFR 5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening a human subject for increased risk of developing a lymphatic disorder, comprises assaying a nucleic acid to determine a mutation altering the sequence of a vascular endothelial growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 60-61; 76pp; English.
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                                                        361 ectespqkcllkqkkthhqtcscyrrpctnrqkacepqtsyseevcrcvpsywkrpqms
                                                                              457 ECTENTQKCETKGKKEHBQTCSCYRRPCANRIXHCTDESLSESEEVCKCVFSYWKRPHIN 415
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Human: receptor tyrosine kinase; RTK; Flt4; fms like tyrosine kinase 4; VESFP-4; vascolar endothelial growth lactor receptor-1; chromosome 5q35; cytostatic; tumour imaging anti-tumour therapy; treatment; diagnosis; neoplastic disease, lymphoma, cardibada, breast, squamous cell; medanoma, sarcoma; malignancy; VEGP-C; vascular endothelial growth factor C.
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Protein
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                                                               Professional Patters of Special Cyclinic tosides from iniscent of a Balbiani ring 3 protein (BRP) sequence; cleavage of sixual peptide and the Cotter (BRP) peptide produces a partially processed form of VEGF-C of about 29 kB which has high iffinity to fit4 (VEGF9-3).
                                                                                                                                                                                     /mote- "cleavage of this peptide from partially processed VEGF-C produces a fully processed mature form of VEGF-C
                                                                                                                                                   /label- Mature_VEGE-C
                                                                                                                                                                                                                                    /label= Signal peptide
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1..31
                                                                                                                                                                         21-23 kD which has high affinity to VEGER-2"
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Matches

358;

Conservative

28; Mismatches Pred. No. 7.9e-151;

1 MHLLCFLSLACSLLAAALIPSPREAPATVAAFESGLGFSEAEPDGGEVKAFEGKDLEEQL 60

RSVSSVDETMSVLYPDYWKMYKODI PKOOWO - - - OPTI NTRTGDSVKEAAAHYNTEILK - 11 6 mbllgffsvacsllaaallpgpreapaaaaafesgldisdacpdageatayaskdleegl 60 Omery Match Best Docal Similarity

85.48;

DH 21:

Length 419; Indels

4: Gaps

Binding-site

114...213

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W-200021569-AL 20-APR-2000

U8-OCT-1999; 99WO-0S23525

(LUDW-) LUDWIG INST CANCER RES (UYHE-) UNIV HELSINKI LICENSING LTD OY.

Alitalo K. Kaipainen A. Valitola R, Jussila

binding of ligand proteins to ims like tyrosine kinase 4 receptor Treating neoplastic diseases such as lymphoma, carcinomas, melanomas and surcomas, involves administering a compound capable of inhibiting

Example 15-17; Page 140-142; 148pp; English

tor manufacturing medicament useful for diagnostic screening, imaging and treatment of malignancies characterised by FIT4-exprossing blood cells. The FIT4 gene maps to chromosomal region 5q35 and is expressed as 5.8 kb and 4.5 kb mRNAs which differ in their 3' sequences and are differentially expressed in HEL and DAMI cell lines, FIT4 belongs to a subtamily of class III receptor tyrosine kinases (RTKs). It is used as a target for tumour imaging and anti-tumour therapy. The present sequence is a human prepro-vascular endothelial growth tactor C (VECF-C), a specific example of FIT4 binding compound. endothelial cells. The compound is useful for treating neoplastic disease such as breast carcinomas, squamous cell carcinomas, lymphomas, melanomas method involves administering a compound that inhibits binding of a ligand to Flt4 thereby inhibiting flt4 mediated proliferation of vascular The patent discloses a method to treat neoplastic disease characterised by expression of the like bytesine kinase 4 (F104) receptor (aiso referred as vascular epositical growth factor receptor 3, VESCE-3) in and sarromas. Fir4 receptor tyrosine kinase binding compounds can be used endothelial cells of blood vessels adjacent to malignant neoplasm.

165 is essential for VFGFR-2 and VFGFP-3 binding*
131..211 position 156 is essential for VEGFE-2 binding and at "important for VEGE C activity" 7 S 밁 10 Ξ Qγ 뀰 Ŷ 子 Binding-site Binding-site Vascular endothelial growth factor-C; VEGF; human; re-endothelialisation; vascular endothelial growth factor receptor. VEGFR, vascular trauma; blood vessel; cardiovascular surgery; anti-restences; sarch; prevention; restences, stemosis, percutaneous transluminal coronary analophasty. Binding-site Binding-site Protein Peptide Peptide Homo sapiens Human vascular endothelial growth factor (VEGF)-C protein 09-AUG-2000 (first entry) AAY70982 standard; Protein; 419 AA 1361 ۲, 61.3 (20) 357 FOTENTOKOFOKOKKEHBOTOSOYKKEWANPLKHODPOLSESSESVOROVVPSYWKRPHLN 415 ectespakellkakkthhqteseyrrpetnirqkacepafsyseeverevpsywkipgms 419 LSKTLFEITVPLSQGPKPVTISFANHTSGECMSKLDVYEQVHSIIFRSLPATLPQGQAAN 236 TSS GREET RESS TO A CENEL FIRST CAMPETED INTO A VERTOUR NO PLANCK CAC ktcptsymwsokierclagedfmfssdagddstdgfhdicgnokeldeetcgeveraglr 300 lsktlteitoplsgapkpytistachtscremskldvyrgybsiirrsipatlpgcgaan sidnewiktgompreseld-gkefgvathtffkppevsvyreggenseglgemntstsy SIDNEWRKTOCMPREVCIDVGKEEGAATNTEEKPPCVSVYROGGCCNSEGLOCMNTSTGY 170 K.L.CLERKAAMHENDEGTYÖÖGELTERENEGEGENGEROOGENKTITTELLÖGGKAKRAMAAKLEGER /not e-137 /note-156 /note-131...2 /motes "Cleavage results in fully-processed mature VEGF-C protein (21-23 kD)" 104.227 8 protein (29 kD)" 32..103 /label= Signal_peptide
/bote *Cleargage results in partially processed VEGF-C /note-/label= Mature_human_VEGF_C Location/Qualitiers "Essential for VEGFR-2 binding" "Essential for VECFR-2 and VECFR-3 binding" "Essential for VEGER-2 and VEGER-3 binding" "Processed vascular epithelial growth factor-c" "Essential tor biological activity of protein" Amino_terminal_peptide

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present amino acid sequence is the complete human prepro-vascular endothedial growth factor (VREP)-C. VREP-C has the ability to stimulate re-endothedialisation of an injured blood vessel, without significant stimulation of smooth muscle cell proliferation. It can bind to and stimulation of smooth muscle coll proliferation. It can bind to and stimulate VESTR 2 (viscular endothedial growth factor receptor) and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used in a method to reduce or prevent restenosis and stenosis of a blood messel following gascular trauma e.g., cardiovascular surgery and perculanceous transfominal coronary analophasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VEHER 3 phosphorylation in cells that express such receptors. An anti-restenosis agent comprising either a VEHE-C gene or protein is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Preventing stemosis and restemosis in mammals using vascular endothelial growth tactor proteins or the nucleic acids encoding them
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                                           367 BYTENTOKOFLKGKKEHHOTOSOYRRFCANRLKHODFGLSFSBEVORCVPSYWKRPHLN 415
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                                                                                                                                                                                                                237 KTOPTNYVWNYMOROLAQQDFTFYSNVEDDSTNGFHDVOOPNKELDEDFTQOOVOKGOLR 296
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(6) ectespakellkakkthbateseyrrpetniakaeepatsyseevereepsywkrpams 419
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/mote "Cleavage results in partially-processed VEGE-C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Achen MC
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Conservative

28; Mismatches

4; Gaps

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RESULT 11
 Best Local Similarity
                 Query Match
                                                                                                         factor D VEGF-D denes (via dene therapy) and proteins. The present sequence is the protein sequence for VEGF-C.
                                                                                                                                              risk of deceloping a lymphatic disorder. Treatment for hereditary lymphedoema can be provided through the administration of vascular endothelial growth factor C (VEGF-C) and vascular endothelial growth
                                                                                                                                                                                                                     AAB37694) and determining an increased risk of developing lymphatic disorder from presence or absence of the mutation. The presence of a mutation aftering the encoded amino acid sequence or expression of at
                                                                                                                                                                                                                                                                          sequence or expression of vascular endothelial growth factor receptor-9 (VEGFR-3)/Ims-like tyrosine kinase 4 (FIT4) allele (see AAC68952 and
                                                                                                                                                                                                                                                                                                                            The present invention relates to a method for screening a human subject for an increased risk of developing a lymphatic disorder e.g. bereditan lymphatisems. The method comprises assaying sucleic acid of a human
                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Pages 62-63; 99pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                        Screening a human for an increased risk of developing lymphatic disorder comprises assaying nucleic acid for alterations in the sequences expressing vascular endothelial growth factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB: AAC68953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA2283470-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB37605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB37605 standard; Protein; 419 AA
                                                                        Sequence
                                                                                                                                                                                                   least 1 VEGER-3 allele in the nucleic acid correlates with an increased
                                                                                                                                                                                                                                                                                                               subject to determine a presence or an absence of a mutation aftering the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alitalo K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (LUDW-) LUDWIG INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYFI-) UNIV PITTSBURGH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human VEGE-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; gene therapy; lymphatic disorder; bereditary lymphedoema; Elt4; vascular endothelial growth factor receptor-3; VEGFR 3; VEGF-C; VEGF b;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27 FEB-2001 (first entry)
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                                                                            419 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ferrell RE,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99CA-2283470
 87.8%; Score 2048; DB 22; Length 419; 85.4%; Pred. No. 7.9e-151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Finegold DN, Karkkainen M;
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A human vascular endothelial growth factor (VEGF)-related protein (VFGF) (AAMI 083) has been identified that binds to, and stimulates the phosphorylation of, the receptor tyrosine Kinase F144. It is postulated to be a third member of the VEGF protein family. Its amino acid sequence was deduced from a cDNA clone (AAT59929) obtd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human protein similar to vascular endothelial growth factor to treat e.g. wounds, tumours, rheumatoid arthritis, Kaposi's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
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                                                                                                                                                                                                                                                                                                                   Claim 6: Fig 1A-D: 68pp: English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB: AAT59929
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from a glieba SKI library. Eccembinant VRF can be produced in transformed host cells and used: to promote growth of vascular and jupb calculation. Acts, to stimulate phosphorylation of the tyrosine kinase domain of a Fit4 receptor as a diagnostic; as an additive to cell cultures to series for (act) agonts and to relie to cell cultures to series for (act) agont and to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vascular endothelial cell growth; endothelial cell migration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human vascular endothelial growth factor-2; VEGF 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY30518 standard; Protein; 419 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor 2 (VEGF 2).
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85.2%; Pred. No. 4e-150;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                some autoimmune disorders, acquired (e.g. by chemotherapy or toxins), or noted ious. Examples of immunologic delicionary syndromes include blood protein disorders, staxia telandicetasia, common variable immunodeficionary Disporae syndrome, HIV intection, HTLV-BLV intection, leakovyte adhesion deficionary syndrome, lymphopenia, phagocyte contesting the syndrome of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activating or inhibiting the proliferation, differentiation, or modellization (chemodaxis) of immune cells. The etiology of these immune deficiencies of disorders may be genetic, somalic, such as cancer or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                blood pressure, and increase blood flow. The polynucleotides and polypoptides can be used for preventing, treating or ameliorating a medical condition. The VESE 2 polypoptides or polynucleotides may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents vascular endothedial growth tactor-2 (MSF 2). The MSF 2 polypoptides have activities similar to MSF. The MSF 2 polypoptides have activities similar codothelial cells, stimulate the growth of vascular endothelial cells, stimulate endothelial cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NULL OS TANK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mason CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarly affergic reactions and conditions such as asthma (particularly affergic asthma) or other respiratory problems, may also be treated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bactericidal dystumetion, severe combined immunodeticioney (SCIDs),
Wiskott Aldrich disorder, anemia, thrombocytopenia, or hemoglobingria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful in treating deficiencies or disorders of the immune system,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HUMA ) HUMAN GENOME SOT INC
                                                                                                                                                                                                                                                                                                    2.47 KTOPTNYYWNNYMOROLAOGEFFFYSNYEEESTNGFHEVONFNKELLEEDTOOCVOKGOLK 296
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361 ectospikellkirkkihligteseyripetniiqkacepqisyseeverevpsywqrpqms 419
                                                                            857 SCIENTORCH FORFEHHOTOSCYRRIG-TANRLEHODHOLSESEBVORGVESYWKRDHLN 415
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6) issueendelmtvlypeywkmykrylikggwybnrequnlnsiteetikluuuhynteilk 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 RSVSSVDELMSVLYFDYWKMYKODJAKOBWQ+ +-QFILNIKIGDSVKFAAAHYNIEILK 116
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Similarity B5.0%; Prod. No. 4.7e-150;
56; Conservative 29; Mismatches 30; Indels 4
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                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence is the vascular endothelial growth factor 2 (VEGF2), of the invention. The isolated polypeptide is useful for stimulating analogoussis, by promoting the proliferation of endothelial cells, for the treatment of a wound, or for the treatment of tissue or bone damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Fig 1; 49pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial growth factor 2 for wound healing and vascular
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF2; vascular endothelial growth tactor 2; angiogenesis; bone damage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Full length human VEGF2 protein sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY22320 standard; Protein; 419 AA
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             297 PSSCOPHKELDROSCOCYCKNKLERNSCGANKEFDENT OF VEKET FRNGFLNIGSKCAC
                                              241 kteptnymwnrhierelagedfmfssdagddstdgthdiegpukeldeetegeveraglt
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                                                                                                                                                                                                           117 SIDNEWRKTQCMPREVGIDVGKEFGAATNTEFKFPCVSVYRGGGCCNSEGLQCMNTSTGY 176
                                                                                                                                                                                                                                        61 rsvssydelmtvlypegwkmykeqlikddwghuieqaulusiteetiklaaabguteilk
                                                                                                                                                                                                                                                                            $1 KSVSSVDELMSVLYTOYWKMYKGQCEKKGCWQ--- QFFELNFKIGESVKKAAAAHYNFELLK IIIs
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                                                                            KTOPTNYVWNNYMOROLAUQDETFYSNVEDUSTNOFHDYOGPNKELDEDTOQOVOKGOLK
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Hu J,
                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                           87.4%; Score 2038; DB 20; Length 419; 85.0%; Pred. No. 4.7e-150;
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                                                                                                                                                                                                    Query Match
Best Local s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular endothelial growth factor 2: VEGF-2: retina; angiogenesis; treatment; injury; degeneration; photoreceptors; eye; angioid greaks; ratinitis; pigmentosa; human;
                                                                                                                                                                                                                                                                                                                         Administration of vascular endothelial growth factor 2 (VEGF-2) to a patient can be used for treating injury or degeneration of photoreceptors associated with e.g. angioid streaks, retinitis pigmentosa, age-related macular degeneration, diabetic retinopathy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating injury or degeneration of photoreceptors comprises administering to a subject vascular endothelial growth factor 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUN-1999;
22-DEC-1999;
                                                                                                                                                                                                                                                                  Seriasmos
                                                                                                                                                                                                                                                                                                vessels in the retina.
                                                                                                                                                                                                                                                                                                                                                                                                      Claim 31; Fig la-e; 252pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rosen CA, Alderson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FFH-2000; 2000WO-US03047.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-AUG-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        age-related macular degeneration; diabetic retinopathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vascular opdotholial growth tactor=2 (VETP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-080-2000 (tirst entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY97144 standard; Protein; 419 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-FEB-1999;
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                                                                                                                                                                                                 Match 87.4%: Score 2038; DB 21; Local Similarity 85.0%; Pred. No. 4.7e-150;
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                                                                                                                                         MHLLCFLSLACSLLAAALIPSPREAPAIVAAFESGIGFSEAEPDGSFVKAFEGKDLEEGL 60
sidnewrktqcmprevojJoqkefqvatutttkppovsvyroqqccmseqlqcmntstsy 180
                              SIDNEWRKIQCMPREVCIDVGKEFGAAINIFFKPPCVSVYRCGGCCNSECLQCMNISIGY 176
                                                             rsvssydelmtylypeywkmykeqlrkggwqhureqanlnsrteetikfaaahynteilk 120
                                                                                          RSVSSVDELMSVLYPDYWKMYKGQLEKGGWQ----QPTLNTKTGDSVKFAAABYNTE1LK 116
                                                                                                                       mhslqffsvacsllaaallpypreapaaaaafesgldlsdaepdageatayaskdleegl 60
                                                                                                                                                                                                                                                                                                            VEGF-2 promotes anglogenesis, the formation of new blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000-532862/48.
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                 356;
                                                                               Conservutive
                                                                                                                                                                                                                                                                   419 AA;
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                                                  FOTENTIAN TO ROPKEHBLIOSOMERPOANELKHOUPGLISESEEVOROVESYWERPHIN 415
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                                                                                                                                                PSSCGPHKFITHESCYCENKLEPNSCGANREFTENTCYCVCKETCPHNUPLNPGKCAC 356
                                                                                                                                                                                              ktcptnymwnnhicrclagedimissdayddstdyihdicypnkeldeetcgcvcraqlr 300
                                                                                                                                                                                                                                                                                          lsktlfeitvplsggpkpvtisfanhtseremskldvyrgvhsiirrslpatlpsgegaan 240
                                                                                                                                                                                                                                              KTCPTNYVMNNYMCRCLAQQDF1FYSNVEDDSTNGTHDVCGPNKELDEDTOQCVCKGGLR 296
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